



NEWS FLASHES

'Automatic Washer In
Year' Says Maytag

NEWTON, Iowa—Maytag Co. here will build a new \$5 million factory to produce its new automatic washer, according to Fred Maytag II, president. Sites in Des Moines, Newton, and Cedar Rapids, Iowa are under consideration for the plant.

"We expect to have the factory completed and washers coming off the production lines within a year," Maytag was quoted as saying.

Proctor Ends Allocation
Of Irons; Others Don't

NEW YORK CITY—All allocations on Proctor automatic irons were ended last week, according to an announcement by Robert M. Oliver, vice president of the Proctor Electric Co.

Oliver attributed this action to a step up in iron production to a point where the daily rate of output is 25% higher than that of 1947. Production last year, he added, was 400% above 1941.

Spokesmen for Westinghouse Electric Corp. and General Electric Co., however, asserted that they see no early end to the allocations on their automatic irons in spite of the fact their outputs have been increased.

The Westinghouse representative said that the company has already sold to distributors its entire 1948 production of electric fans.

Allocations on Proctor automatic toasters will probably not end this year, Oliver declared even though the company is doubling last year's output.

Delco Plan To 'Skip'
Oil Burner Payments

NEW YORK CITY—A new "skip payment" financing plan for oil burner purchasers and the inauguration of a fuel saving program for oil burner owners in eastern states were announced here last week by M. L. Judd, sales manager for the Delco Appliance division of General Motors Corp.

Judd said that the new financing plan would spread payments on new oil burners over the months when the customer was not spending money for fuel bills.

Under the fuel saving program, he declared, Delco salesmen will, on the owner's request, make a free survey of his oil heating equipment. They will check on the combustion chamber and flame, baffle flues, nozzle efficiency, draft regulator needs, flue conditions, boiler water conditions, and need for turbulators.

On the basis of the survey, ways of saving fuel will be recommended.

1947 Figures Reflect
Washer Sales Spurt

CHICAGO—With sales of standard size washers up 86.9% and ironers up 350.8%, merchandising of laundry equipment established a new peak in 1947. Final figures, released by the American Washer & Ironer Mfrs. Association, show that sales of standard washers hit 3.8 million last year as compared with two million units in 1946. Ironer sales totaled 599,258, a landslide contrasted with the 124,618 which moved the year previous.

In the small washer field, where yearly sales were reported for the first time, the figure reached 497,857 units. While washer unit sales were off slightly in December as compared with the previous month, the reverse was true of ironers. For December 351,152 standard size washers were sold (Nov. 365,579); small washers aggregated 38,058 (Nov. 42,425); and ironer sales 70,599 (Nov. 58,980).

Harvester Prices
On Refrigerators
Are Announced

DETROIT — Recommended retail prices on the new International Harvester refrigerator and freezer models as applied in Detroit, Toledo, and Chicago, were announced by the R.C.A. Victor Distributing Corp., I-H distributor here.

Prices on the refrigerators, all 8-cu. ft. models, are:

8H1 (standard)	\$225
8H3 (deluxe)	\$250
8H5 (super deluxe)	\$289.50
Recommended freezer prices are:	
4FC (4.2 cu. ft.)	\$235
11FC (11.1 cu. ft.)	\$395

Tecumseh Outlines
Sales, Product Plans

TECUMSEH, Mich. — New 1948 model Tecumseh compressor and condensing units and Tecumseh's recent arrangements with Kenmore Machine Products, Inc. of Lyons, N. Y. to handle part of Tecumseh's line of conventional condensing units to wholesalers were discussed at a meeting of the firm's entire sales staff here late last month, reports L. W. Larsen, assistant sales manager. The new line includes a 1/2-hp. domestic compressor with approximate (Concluded on Page 28, Column 2)

'Electronically' Charged
Foods To Need Cooling

NEW YORK CITY — Preservation of foods by electronics or some sort of an electrochemical process is probably some time away—despite some recent excited newspaper reports—and if and when it should become a commercial venture, refrigeration of the foods thus treated will likely still be needed.

A recent newspaper report stated that Donald M. Nelson, former War Production Board chief has been named chairman of the board of Electrical Chemical Research Co., which firm would set up to preserve foods electrochemically—"and thus put freezing out of business."

The Refrigeration Research Foundation, commenting upon "electronic processes" for food preservation, says:

"Radio-frequency heating is industrially useful—will probably find application in foods. This does not mean that it will become a substitute for freezing or refrigeration. Foods that are sterilized and protected by heating against enzymic deterioration will require low temperature for storage."

Household Unit
Sales In 1947
Hit 3,420,000

Short of 1941 Record;
Big Bulk of Sales In
Models over 7 Cu. Ft.

DETROIT—World sales of household electric refrigerators in 1947 by U. S. manufacturers totaled 3,420,000, according to estimates by AIR CONDITIONING & REFRIGERATION NEWS.

Sales reported to National Electrical Manufacturers Association by 11 principal producers totaled 3,193,749, of which 2,994,297 were made in the U. S.

The total sales did not quite match the record year of 1941, when an estimated 3,470,000 household electric refrigerators were sold. Shortages in materials was probably the only thing that kept 1947 from becoming a record year.

One of the most significant items in the Nema report, in terms of industry trends, is the breakdown of sales by sizes of cabinets. For the year 1947 the sales by cabinet size (in percentage of total sales) was as follows:

Cabinet Size	% of Total Sales
6 cu. ft.	11%
7 cu. ft.	56%
8 cu. ft.	15%
9 cu. ft.	20%

In 1940, the breakdown of Nema household refrigerator sales by cabinet size was:

Cabinet Size	% of Total Sales
5 cu. ft.	6.3%
6 cu. ft.	80.1%
7 cu. ft.	1.2%
8 cu. ft.	8.2%

In the tabulation at the bottom of page 1, AIR CONDITIONING & REFRIGERATION NEWS brings up to date its cumulative record of electric refrigerator sales, retirements, and market saturation, which it began recording more than 20 years ago.

The item of "retirements" is one that needs explanation. "Retirements" must be distinguished from "trade-in sales," because in order to be counted as a "retirement" the unit must actually be junked.

There are certain factors that must be kept in mind in relation to retirements. One is that in the early days of the industry sales figures were based on the number of cooling units (evaporators) sold, this being a necessary factor in those times, when many multiple systems for apartment houses were being sold. In metropolitan areas there are still many such systems being replaced, and (Concluded on Page 4, Column 3)

St. Paul Electrical
Meeting & Show
Opens Feb. 29

ST. PAUL—An Electrical Convention and Trade Exposition, covering all phases of the electrical industry, will be staged here from Feb. 29 through March 4 by the North Central Electrical Industries.

Meetings of the various associations participating in the convention will be held in the Hotel St. Paul and in the St. Paul Auditorium. The exposition, composed of 100 booths displaying new appliances, lighting fixtures, wiring devices, and supplies, will be set up in the St. Paul Auditorium.

Sponsored by the North Central Electrical Manufacturers Club, the exposition will be open to registrants at the convention during the following hours: Monday, March 1: 2 to 10 p.m.; Tuesday, 2 to 5 p.m.; Wednesday, 7 to 10 p.m.; and Thursday, 10 a.m. to 4 p.m.

Groups that will hold meetings during the convention include the Minnesota Electrical Association, the (Concluded on Page 25, Column 3)

'Voluntary' Policing
Of Radio Servicing
Called Successful

NEW YORK CITY—When a few radio repairmen appeared reluctant to satisfy legitimate customer complaints, the threat of legal action convinced them that the crusading Associated Radio Servicemen of New York, Inc. meant business.

Since its inception two months ago, the ARS has received over 20 complaints from consumers about unsatisfactory practices by radio repairmen. Most every complaint, disclosed Max Liebowitz, president, involved a "tiny minority of unethical operators."

In each case the association, which represents more than 300 radio technicians, dispatched an agent to. (Concluded on Page 25, Column 3)

Flash Flood Doesn't
Halt Frigidaire

DAYTON — A "flash flood" on Friday, Feb. 13, which did extensive damage to parts of the administration building at the Moraine City plant of Frigidaire did not hold up production in any way, Frigidaire officials have stated.

Water entered the administration (Concluded on Page 25, Column 1)

Cumulative Record of World Sales of Electric Refrigerators
With Exports, Retirements and Market Saturation

	World Sales	Exports	Sales In U. S.	Retirements	Distributor & Dealer Stocks	Total In Use In U. S.	Wired Homes	Market Saturation
Dec. 31, 1939	17,158,000	1,318,000	15,840,000	1,950,000	150,000	13,740,000	24,450,000	
During 1940	2,772,000	142,000	2,630,000	330,000				
Dec. 31, 1940	19,930,000	1,460,000	18,470,000	2,280,000	100,000	15,090,000		
During 1941	3,470,000	200,000	3,270,000	370,000				
Dec. 31, 1941	23,400,000	1,660,000	21,740,000	2,650,000		19,090,000		
During 1942	550,000	30,000	520,000	200,000	†			
Dec. 31, 1942	23,950,000	1,690,000	22,260,000	2,850,000		19,410,000		
During 1943	280,000	20,000	260,000	450,000*	†			
Dec. 31, 1943	24,230,000	1,710,000	22,520,000	3,300,000		19,220,000		
During 1944	2,000,000	120,000	1,880,000	200,000	†			
Dec. 31, 1944	26,230,000	1,830,000	24,400,000	3,500,000	150,000	20,900,000		
During 1945	3,420,000	220,000	3,200,000	350,000				
Dec. 31, 1945	29,650,000	2,050,000	27,600,000	3,850,000		23,600,000	33,000,000	71.5%

*Includes 1943 and 1944. †Negligible.

Story of the Week
Where Your Money Goes
Rural Market Beckons
Good Salesmen Are Born—
Also Made

Story of the Week

Sullenly, a ten-year-old boy sat in the witness box while the prosecuting attorney directed a rapid cross-examination designed to disconcert the lad.

"What do you do for a living?" asked the lawyer.

"Nothin'," replied the boy.

"What does your father do for a living?"

"Well . . . nothin'."

"Doesn't he have any occupation?"

"No."

"Doesn't he do anything to support his family?"

"Oh, a little somethin' here and there once in awhile."

"All right, sonny," continued the attorney, an expression of self-satisfaction creeping over his face, "then you admit that your father is a bum, a no-good loafer, and a lazy tramp?"

"Don't ask me that," answered the child, squirming uncomfortably. "Ask him. He's sittin' right over there in the jury box."

Where Your Money Goes

The average American spends three and three-quarter months out of the year working for the government. That's 31 cents taken out of each dollar of 1946 income by federal, state, and local government, according to F. A. Harper of the Foundation for Economic Education. This amount is equal to the consumer's total food, housing, and household expenses.

Harper points out that only about one-third of the amount taken by government is conspicuous as direct personal taxes, such as income taxes and property taxes. The other two-thirds is mostly in forms concealed from view, attached to items and services bought from private producers. Most people are not aware that these "hidden" taxes have assumed such large proportions.

"For instance," he continues, "out of the 23 cents of the average consumer's income dollar that is paid for food, only 18 cents goes to private producers for the jobs they have done in producing it, and making it available in the store and in the restaurant. The 5-cent difference is the amount of taxes, added in one way or another to the price as a charge for the expenses of government."

Progressively more and more of people's incomes have been taken by government, particularly over the last two decades. Prior to the Civil War, government took less than a nickel from each dollar of personal income. From the Civil War to World War I, the government deduction was 9 cents. In 1930 began the first sizable peacetime increase in our history, which ran the tax take up to about 25 cents out of each dollar.

The 1946 figure of 31 cents includes only those forms of control over individuals represented by direct government expenditures. In addition, Harper asserts, government exercises other forms of control over some of the remaining 69 cents. All told, the people of this nation have now lost control of nearly half their incomes.

Alarmed at the rapid growth of government, Harper concludes that it is doubtful if a nation of "free" people can long prevail in this situation. He calls for a reduction of (Concluded on Page 12, Column 1)

Quicfreez TRIZONE

SANITARY'S PREWAR COMBINATION
Farm Freezer is again available for immediate shipment. Suggested consumer price only \$399.50.

MODEL NO. C-1148

4½ cu. ft. of 35-50°F. Refrigeration combined with 6¼ cu. ft. of zero frozen storage.
Size: 48½" w. x 28" d. x 40¾" h.
Frozen meat capacity—250-300 lbs.
¼ H.P. hermetic, quiet-type condensing unit
60 cycle 115 volts A.C.

SANITARY REFRIGERATOR CO. FOND DU LAC, WIS.
ICE REFRIGERATORS FOR MORE THAN 40 YEARS FARM FREEZERS SINCE 1939

Layaway Volume Won't Fall If Customer Is Protected Against Price Drop While Paying Balance, Indiana Dealer Discovers

FT. WAYNE, Ind.—A certificate which guarantees layaway appliance customers that any difference between the original price and current market price will be automatically refunded, has proven a valuable merchandising asset at the Grand Leader Department Store of Ft. Wayne.

Layaway sales since Jan. 1 had taken a sharp nosedive according to the management, which carried out a bit of research and found that customers were "afraid to use the layaway plan."

Most low-income purchasers, it was found, feared that after committing themselves to paying a certain price for a specific appliance, the market price would drop, leaving them "stuck" for the loss. Therefore, the usual after-Christmas layaway sales volume did not materialize.

The Grand Leader's answer has been a formal certificate, resembling a bond, which is printed in green on a 10 x 7 in. sheet. It is headed "Guaranty Against Price Decline Layaways." This guarantee states:

"Know All Men By These Presents that: Grand Leader, Fort Wayne, Indiana, the undersigned, hereby grants to the purchaser of the merchandise sold by the undersigned on its Layaway Plan and described in its sales check herewith issued therefore, its irrevocable Guaranty, as stated below, against loss due to a reduction in price of that merchandise.

"Accordingly, the undersigned

GUARANTY AGAINST PRICE DECLINE LAYAWAYS

KNOW ALL MEN BY THESE PRESENTS THAT: GRAND LEADER, FORT WAYNE, INDIANA

THE UNDERSIGNED HEREBY GRANTS to the PURCHASER of the merchandise sold by the undersigned on its LAYAWAY PLAN and described in its sales check herewith issued therefore, its irrevocable GUARANTY, as stated below, against loss due to a reduction in the price of that merchandise.

ACCORDINGLY, the undersigned hereby guarantees that if, when final payment for such merchandise is made by the PURCHASER as provided in the said sales check, the undersigned's selling price therefor is lower than that charged the PURCHASER, the undersigned shall either refund to the PURCHASER the amount theretofore paid in excess of such reduced price or shall deduct the amount of the reduction from the balance then owing on such merchandise, as the case may be.

IN WITNESS WHEREOF, the undersigned has caused this guarantee to be made and delivered to the purchaser.

GRAND LEADER
FORT WAYNE, INDIANA
Guarantor

Dated

When customers are afraid to buy appliances on the layaway plan, Grand Leader exhibits this guarantee, usually gets the sale.

hereby guarantees that if, when final payment for such merchandise is made by the purchaser as provided in such sales check, the undersigned's selling price therefor is lower than that charged the purchaser, the undersigned shall either refund to the purchaser the amount theretofore paid in excess of such reduced price or shall deduct the amount of the reduction from the balance then owing on such merchandise, as the case may be."

The certificate is dated and signed by the store. One such is quickly brought out and demonstrated to all potential layaway purchasers who express a doubt over the future price of the desired item. As a result, the appliance department quickly restored its layaway volume, and all drops in market prices are automatically taken off the layaway balance due on every purchase.

"We correct every account within a few hours after a price change is announced," a spokesman said, "and we actually got a larger layaway volume than we had expected."

Dollar Sales at Buffalo Forge Pass Prewar Peak

BUFFALO—Dollar volume of sales of the Buffalo Forge Co. is continuing to hold near peacetime record levels," President Edgar F. Wendt reports.

"Last year's sales of \$19,000,000 were approximately two to three times greater than before the war," Wendt declared. He spoke at the opening of the company's three-day engineering and sales conference on air conditioning equipment for sales representatives at the plant on 490 Broadway. The company now employs more than 1,300 workers, compared with approximately 800 before the war.

"Buffalo Forge has a substantial backlog of orders that insure full operations for many months ahead," Wendt said. "However, the markets for our products have again returned to a competitive status and our sales organization has been geared to meet the challenge in our field."

New! HERMETICS

FOR A WIDER RANGE OF APPLICATIONS
YES, NEW CAPACITOR AS WELL AS SPLIT-PHASE TYPES

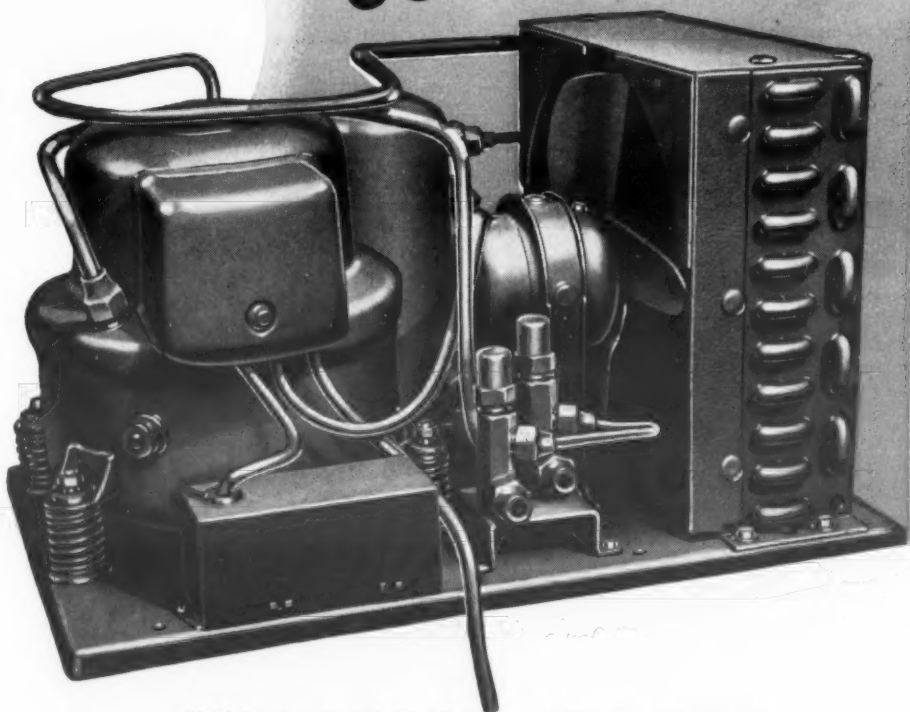
by **UNIVERSAL COOLER**

GREATER RANGE
of sizes and capacities in U.C. hermetic condensing units now available.

COMPLETE LINE*
of hermetic condensing units ranging from 1/8 H.P. to 3/4 H.P.

YOUR CHOICE
of U.C. Hermetic condensing units for capillary tube or expansion valve systems.

Write or Wire
your problem today—let us solve it, the Universal Cooler way.



This is the 1/8 H.P. Universal Cooler Hermetic Condensing unit with a capacitor type motor.

*F-22 Refrigerant? Units with this refrigerant now available for special applications.

HERMETICS	REMOTES	SELF-CONTAINED
1/8 H.P. TO 3/4 H.P.	1/4 H.P. TO 15 H.P.	1/6 H.P. TO 3/4 H.P.

UNIVERSAL COOLER

DIVISION INTERNATIONAL DETROLA CORPORATION
MARION, OHIO • BRANTFORD, ONTARIO



The FOGEL "Reach-In" Refrigerator



"BALANCE"

Perfect balance is as important in refrigeration as it is on the high wire. Every FOGEL "Reach-In" Refrigerator has perfectly balanced refrigeration that guarantees years of dependable, uninterrupted service. Their streamlined, space-saving design make them a natural seller. Styled for beauty, FOGEL "Reach-Ins" also bring your customers such outstanding advantages as:

- The FOGEL EXCLUSIVE "Pull-Out-Base" (entire unit on all "Reach-Ins" is easily pulled out for quick servicing).
- FOGEL-Armstrong One-Piece Insulation (will not crack, crumble, or settle. Non organic and vermin proof).
- All-Steel Welded Construction with heavy duty, chromium plated hardware.

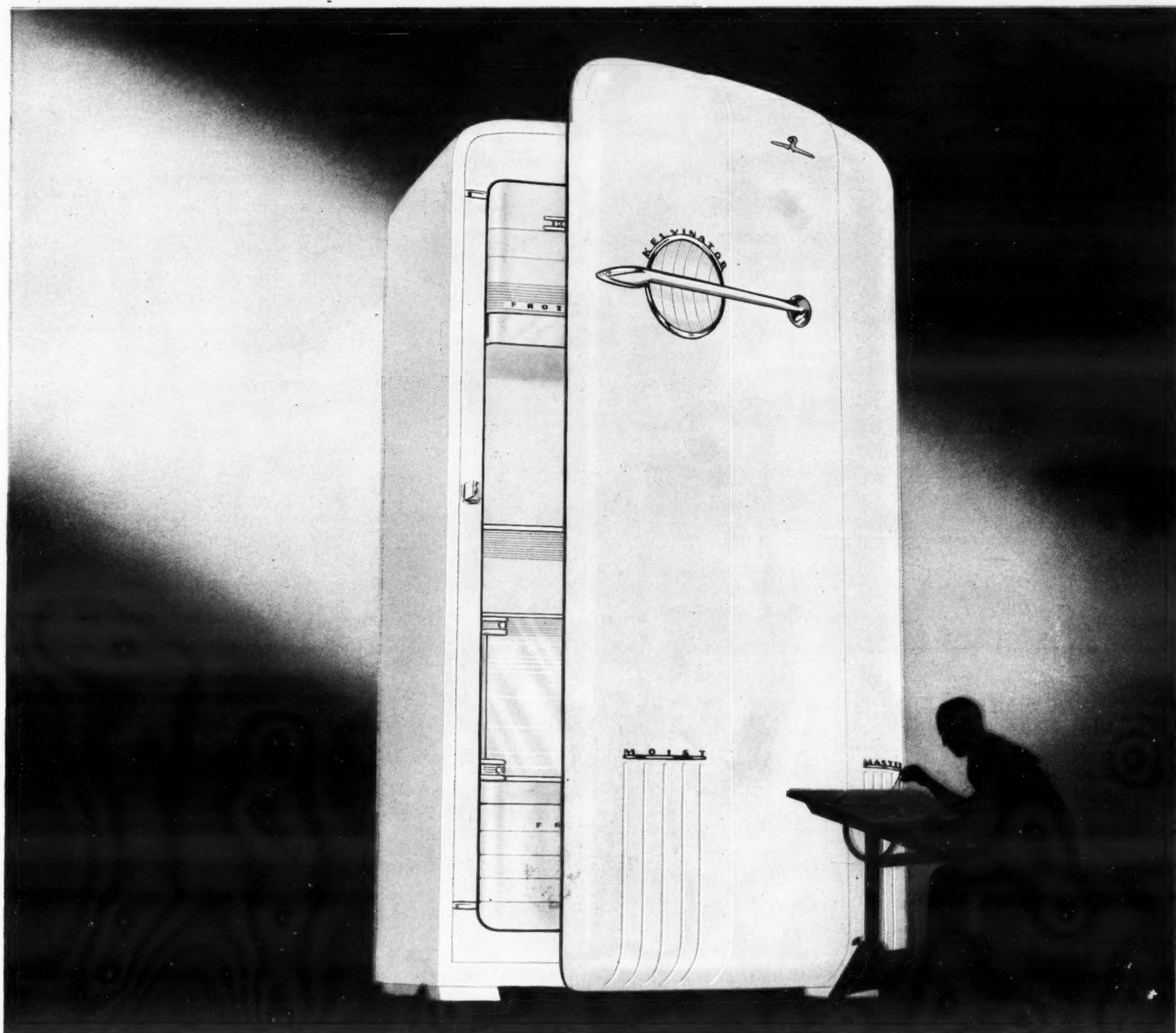
Increase YOUR profits with the FOGEL "Reach-In" Refrigerator line. Feel welcome to write for further information concerning these, or other, FOGEL Quality-Engineered refrigeration items.

Now Available in Three Sizes
(20 cu. ft.; 38 cu. ft.; and 57 cu. ft.)

One franchise gives you a complete commercial refrigeration line.

FOGEL REFRIGERATOR COMPANY
5400 EADOM STREET • PHILADELPHIA 37, PA.

Quality manufacturers, for almost one-half century, of Display Cases, Reach-Ins, Walk-Ins, and Freezers.



Of this we are proud...

This is the new 1948 Kelvinator Masterpiece... one of America's truly new postwar products... born of brilliant engineering that now climaxes Kelvinator's advancements over the years.

Now for the first time ever... Kelvinator introduces *top-to-bottom* refrigeration. Yes! Refrigeration that goes *all* the way from top-to-bottom... from the giant Frozen Food Chest down through the sparkling new and exclusive Fruit Freshener.

Here is a new Kelvinator that represents a major advancement in food keeping for the American home.

And it means much to Kelvinator retailers that they have not

only this *new* refrigerator... but also a *complete* line of models, competitively priced to fit every budget. Here again Kelvinator continues the sound strategy of *retail-minded* thinking so clearly expressed and vividly pledged in the Kelvinator Franchise. Further, here is promise of more top-of-the-line sales through step-up features which are more apparent than ever to the consumer.

Clearly, Kelvinator and Kelvinator retailers are moving swiftly along a new path toward still greater success in the major appliance industry.

Kelvinator — of Course!

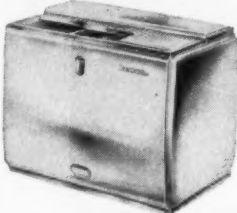
...THE MOST VALUABLE FRANCHISE IN THE APPLIANCE INDUSTRY

KELVINATOR, DIVISION OF NASH-KELVINATOR CORPORATION, DETROIT, MICHIGAN

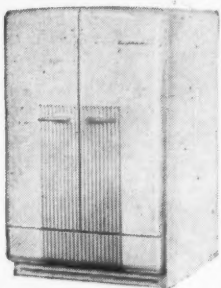
DISTRIBUTORS WANTED!**ORDER FLOOR SAMPLES, AND YOU WILL BUY CARLOADS!****ALERT DISTRIBUTORS AND DEALERS**

WILL BE FRANCHISED • BUYERS EVERYWHERE
—FOR BUXTON'S THREE GREAT NEW REFRIGERATORS •
NEW STREAMLINING • NEW ENGINEERING FEATURES

SO COMPACTLY DESIGNED THAT THE SPACE REQUIRED IS ABOUT THAT OF THE AVERAGE 12 Cubic Foot Refrigerator, but you actually get a Refrigerator with 22 Cu. Ft. normal temperature . . . the Combination Refrigerator is 19 Cu. Ft., half Zero—and half normal and the all Zero refrigerator is 18 Cu. Ft.—And the BUXTONAIRE DRY Cooler for bottled beverages and food products.



All inquiries will be personally
 contacted within a few days.



Manufactured by

BUXTON, INC.

1960 E. 48th St. Phone LUcas 8158 Los Angeles (11) Calif.

General Sales Manager, E. George Sanders
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**Are You Looking for An Easy Way
 to Handle Stoves, Refrigerators
 and Freezers?**

**Solve Your Problem with the New
 ROLL-OR-KARI Dual Trucks**

Patented Step-On-Lift • Folding Handles
 Capacity 1000 Lbs. • Shipping Weight 40 Lbs.
 WRITE TODAY

THE ROLL-OR-KARI CO.
 MANUFACTURERS
 ZUMBROTA • MINNESOTA

1947 Sales--

(Concluded from Page 1, Column 3)
 thus when an apartment house with such a system gets 40 new single units, it means 40 retirements.

Also, it must be taken into consideration that as each year rolls around, a greater number of refrigerators are reaching the end of their life expectancy, and must be considered as belonging in the "retirements" classification.

For the War years, when no refrigerators were being produced, the NEWS has held the retirement estimates to a minimum, realizing that special efforts were made to keep all units in operation.

**Wholesaler Sales Up
 At Close of the Year**

WASHINGTON, D. C.—A rise of 4% over the month of November was shown in the \$5,877 million sales reported for December by independent wholesalers.

This December total brought the total for the year to \$63 billion, 15% above 1946. Independent wholesalers' sales of durable goods were listed at \$21 billion for 1947, which is 33½% better than the same figure for 1946. Largest increases within the durable goods group were recorded by electrical goods, automotive products, and lumber and building materials, the report pointed out. Electrical goods led with a 66% increase.

Independent wholesalers, according to the Department of Commerce, comprise about 45% of the wholesalers in the country.

**3,193,749 Household Units Sold
 By Nema Firms During 1947**

YEAR OF 1947

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. Less than 4 cu. ft....	2,729	....	12	2,741
2. 4 cu. ft.	18,534	1	4,923	23,458
3. 5 cu. ft. ....	....	....	....	....
4. 6 cu. ft.	331,393	854	21,356	353,603
5. 7 cu. ft.	1,608,202	*11,861	*112,817	1,732,880
6. 8 cu. ft.	453,052	958	18,172	472,182
7. 9 and 10 cu. ft.	565,695	*2,470	*26,028	594,193
8. 11 and 12 cu. ft.	10,758	....	....	10,758
9. 13 cu. ft. and up	3,934	....	....	3,934
10. Total	2,994,297	16,144	183,308	3,193,749

*November data of one company corrected.

Participating companies: Admiral Corp.; Crosley Div., AVCO Mfg. Corp.; The Coolerator Co.; Hotpoint, Inc.; Frigidaire Div., General Motors Corp.; General Electric Co.; Gibson Refrigerator Co.; Nash-Kelvinator Corp.; Norge Div., Borg-Warner Corp.; Seeger Refrigerator Co.; Westinghouse Electric Corp.

December Nema Sales Total 333,631 Units

Complete Refrigerators Only

(Lacquer and Porcelain Exterior Cabinets) (Advertised Sizes)

DECEMBER

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. Less than 4 cu. ft....	181	....	....	181
2. 4 cu. ft.	2,042	....	207	2,249
3. 5 cu. ft. ....	....	....	....	....
4. 6 cu. ft.	30,891	....	2,527	33,418
5. 7 cu. ft.	143,637	....	10,208	153,845
6. 8 cu. ft.	73,033	1	3,085	76,119
7. 9 and 10 cu. ft.	63,469	....	1,657	65,126
8. 11 and 12 cu. ft.	2,692	....	....	2,692
9. 13 cu. ft. and up	1	....	....	1
10. Total	315,946	1	17,684	333,631

in New York
THE WORD'S AROUND

Only One **TUBING IS
 'SUPERIOR'**

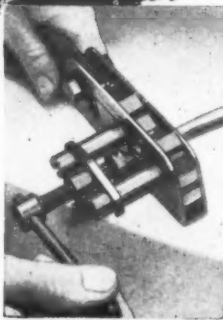
Penn believes and complies with the old adage, "action speaks louder than words"—and through our effort to make a better tube, the word has spread that one tubing is 'Superior'. Our customers have profited for over a quarter of a century through the severe inspection standards of 'Superior' tubing. Recent survey shows that manufacturers have found it economical to standardize on 'Superior', thereby reducing costly rejections.

'Superior' tubing is desirable for trouble-free installations for it is Seamless, assuring uniform wall thickness—Dehydrated and sealed to guarantee dryness—Clean and bright inside and out—Annealed to specifications for easy bending. Available in straight lengths or coils, 1" O.D. to capillary .093" O.D. Tubing and tool literature sent upon request. Give us the word—call, write or phone your requirements.

PENN TUBING IS "SUPERIOR"

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FLARING TOOL



CUTTING TOOL

The Papco #400 Flaring Tool proved such an advancement in its field, there was a demand for a cutting tool of the same superior quality. The result is the revolutionary Papco #500 Cutting Tool. Modernize—order Papco today. Write for literature on tube tool kit.

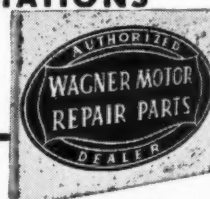
"Genuine Joe"
Knows where to go

**to get High Quality
 Wagner Parts
 for High Quality
 Wagner Motors**

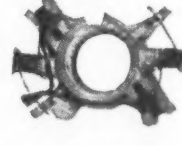
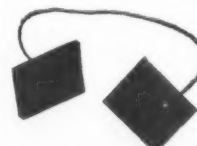


They are available at any of the
**325 PARTS DISTRIBUTORS or
 AUTHORIZED SERVICE STATIONS**

Displaying
 these Signs:



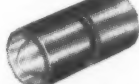
It takes genuine Wagner assembly-line motor parts to retain the high quality of Wagner motors.



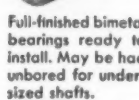
Dependable switches for split-phase and capacitor motors.

Reliable brush-holder assemblies.

Correct grade brushes which assure satisfactory performance.



Steel-reinforced commutators.



Full-finished bimetal bearings ready to install. May be had unbored for under-sized shafts.



Pure wool wicks that actually filter the oil.



Ask for
CATALOG MU-40....

Every repair shop needs one. It helps you determine the catalog number and price of Wagner motor parts.



**6441 PLYMOUTH AVENUE
 ST. LOUIS 14, MO., U.S.A.**

ELECTRICAL AND AUTOMOTIVE PRODUCTS

Refrigeration - Air Conditioning - Heating-Parts and Supplies
 Same Day Service—From Our Complete Stocks



WHOLESALE ONLY
 Request for latest Catalog
 on your "letterhead"

No catalog will be re-
 leased without proper
 identification.

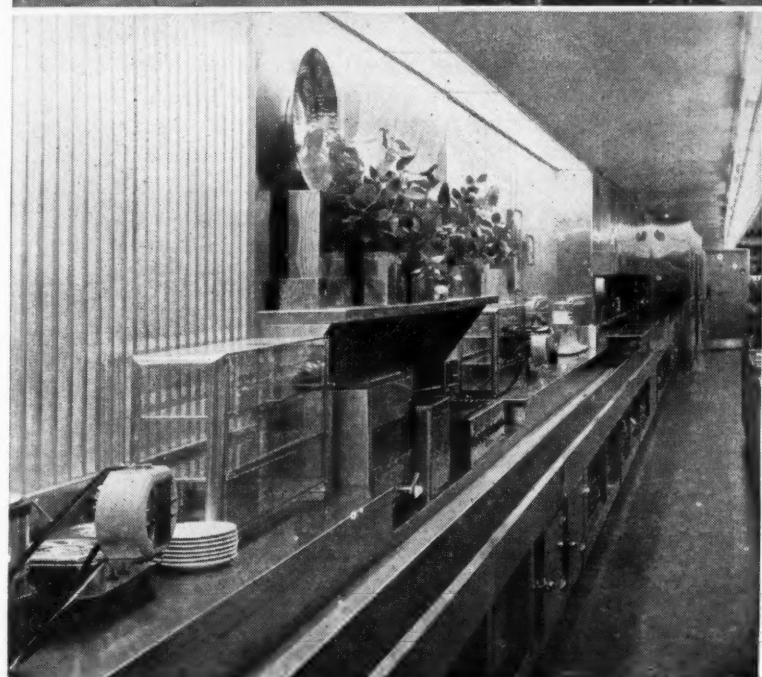
THE SUPPLY HOUSE THAT SERVICE BUILT
BUY FROM THE WHOLESALE THAT PLAYS BALL WITH YOU
SERVICE PARTS CO. 2511 LAKE STREET
 MELROSE PARK, ILLINOIS

Here's your market—



Sixteen SERVEL SUPERMETICS Serving World's Largest Drug Store

United-Rexall Uses "Powered by Servel" Fountain and Food Storage Equipment in New Owl Super Store in Los Angeles



FOUNTAIN ROOM in new Owl Rexall Super Drug Store seats more than 250 people. Here Servel Supermetics serve draft stations, ice cream cabinets, and salad pans. In the large modern kitchen five walk-in refrigerators are also powered by Servel condensing units.



LOCATED in the world headquarters building of United-Rexall Drug Co., in Los Angeles, the new Owl Rexall Super Drug Store will be a "testing ground" for sales and promotional ideas to be used throughout the Rexall chain. Typical of the modern equipment in this mammoth store are sixteen performance-proved Servel Supermetic units.



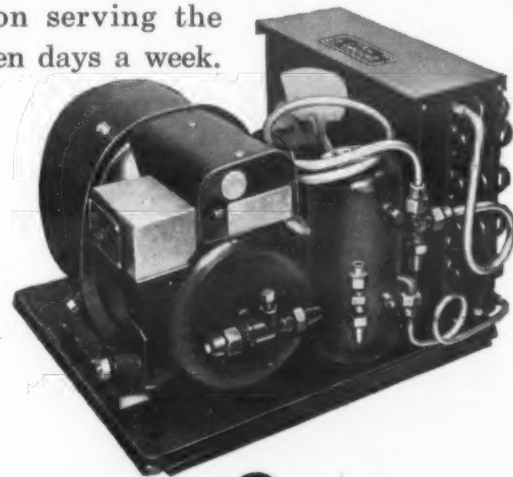
WHEN United-Rexall Drug Company planned their largest, most modern drug store in their new world headquarters building in Los Angeles, they naturally turned to the finest, most up-to-date equipment to fill their condensing unit needs. Key factor in their choice of Servel Supermetic was its efficient, dependable performance in hundreds of other Rexall stores throughout the country. Sixteen Supermetic units now refrigerate the food storage facilities and world's largest soda fountain in the new Owl Rexall Super Drug Store.

This is just one more good example of the fast-moving trend toward multiple-unit sales in the

drug field. Although no one store in your community may need sixteen units, intelligent planning will help you sell two, three or more Supermetics to the same customer. You can suggest one condensing unit for ice cream, another for cooling water and soda, and a third for storage and luncheon products.

Servel Supermetic is a "natural" for this market. The compact Supermetic design saves space. A Supermetic is easy to install. And its efficient, trouble-free operation insures continuity of service in a field where success depends on serving the public seven days a week.

A popular size of Servel Supermetic for fountains where the demand on soda and water is heavy. Eight other fractional horsepower models in both medium- and low-temperature types cover every possible fountain requirement.



Servel Inc.,
ELECTRIC REFRIGERATION DIVISION, EVANSVILLE 20, INDIANA

Check Costs, Credit Now!

By Carefully Watching His Expense Ratios Wholesaler Attains Good Capital Structure

By Frank K. Zimmerman, Lynch Mfg. Corp.*

Some years ago it was my pleasure to speak to this group. As I remember the occasion, the chief object of my talk was to kill about 10 or 15 minutes and just remind you that we credit managers were managing to hold onto our jobs, even though there was really little justification for our companies to have us around. At that time every wholesaler was paying his bills "on the nose," or sending money in advance, hoping that the manufacturer would send him some merchandise rather than return his cash.

That was a lovely credit situation. Your customer was getting his money—you were getting your customers' money—and we manufacturers were getting your money.

And we were all getting enough—especially after OPA died—to make a nice profit. I don't think there was extreme price gouging in this industry, but our system of high list prices with long discounts didn't do the industry any harm when merchandise was hard-to-get.

No Money In Inventories

Another reason for the plentiful flow of money was the fact that it was impossible to invest earnings in inventory, or even in capital assets such as buildings, fixtures, delivery equipment, etc. We could, however, take money out of the till, buy ourselves houses at inflated prices, or a yacht, or a few horses, or otherwise kid ourselves into believing that we were big shots with a lot of dough.

Boy, that was fun while it lasted for some of you, some of us, and some of almost any other business or industry you can name.

But the honeymoon is over. It was last winter, but some super-optimists gave no heed to the warning signs.

What happened at this time last year? Most manufacturers suddenly found themselves with a lot of mer-

chandise ready to move, and they started looking into the orders you had placed back in 1943 and 1944 to find a place for it. Truck-loads of goods that you didn't even remember you had on order were piled into your stores—and invoices accompanied the shipments—invoices that, somehow, the manufacturer wanted to be paid. It became apparent that some of the money that had been spent with so much fun and fanfare really belonged to the business to handle inventory when it became available.

But last winter's situation didn't scare anybody. The stuff would move in the spring, and, by George, we wouldn't let that happen again. No, sir! Well, the stuff did move out, you got your money, you paid us all off,

and things went well last season. Most wholesalers and manufacturers set sales and profit records.

But, as usual for this business, it slumped seasonally in November, December, and January. Profits and sales had been good in 1947, but somehow there hasn't been enough cash left from earnings to finance the seasonal decline.

At no time in the history of the refrigeration business has there been the slowness in paying accounts that is now evident in the rather comprehensive data we accumulate.

I earnestly and strongly urge, that some of the things I'm about to say be given serious consideration, whether you like to think about this phase of your business or not. Please don't connect me with my company

for the next couple of minutes, because we are in the business, too, and have something to sell you fellows—and I don't want our sales department on my back for making anybody mad. I'm just trying to point out what I see as the cause of our present difficulties as far as credit is concerned, and to help, if I can, to point a way to the healthy growth of your business, which is essential to the continued growth of ours.

'Reasonable' Margins Vital

First. During the war and immediate postwar era, practically full price margins—free from price-cutting, trade-ins, etc.—were enjoyed. Gross margin was at a maximum. Budgets were liberalized accordingly. That expanding gross margin has expanded to the limit—and in many cases has shrunk. We hope you will be smart enough not to let it shrink to an unreasonable and unprofitable figure, as nobody gains by that—not even your customer, because he eventually will not receive the service your organizations should be able to afford to give him.

Second. Some of you have learned

that the customer who paid promptly for what he got from you when getting merchandise was "tough," now isn't too interested in paying his bills to you. We all took credit matters pretty lightly until about a year ago. Some of you are still taking them too lightly. A basic principle for any credit manager of any business states that it's better to have lost the sale than to have lost the merchandise.

A word here about credit management. I've recently talked to two wholesalers in different areas where there are local refrigeration credit associations among wholesaler groups. Both of these wholesalers expressed doubt as to whether his fellow wholesaler was reporting the truth, the whole truth, and nothing but the truth. My advice to those groups is to either mend their ways immediately or discontinue a destructive association with one another. No credit association, is more undesirable than an inaccurate or misleading one. But a true spirit of cooperation in a credit group can produce very worthwhile results.

Regardless of such activities, however. (Concluded on next page)



America's
BEST EQUIPPED
Dealers Present—

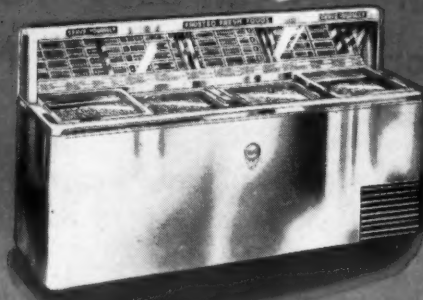
**SEE WEBER
BEFORE YOU BUY!**

Weber Showcase and Fixture Co., Inc.

5700 Avalon Boulevard
Los Angeles 54, California



FOUR REGIONAL OFFICES: NEW YORK - CHICAGO - DALLAS - LOS ANGELES



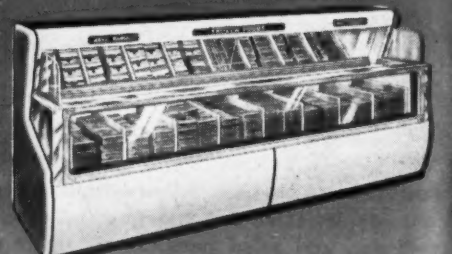
WEBER ROLL-A-DOOR

- * Ice Cream and Frozen Foods Self Service Display Cabinet
- * Greater visibility
- * Patented defrosting track
- * Easier access
- * Positive zero protection
- * Available without superstructure & glass doors; solid doors for storage



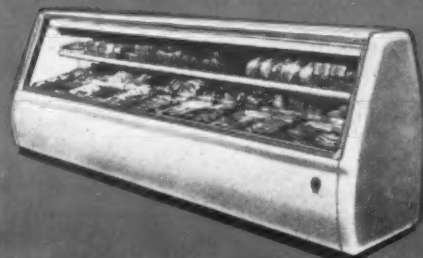
WEBER SUPER SERV. MASTER PRODUCE CASE

- * Balanced Refrigeration
- * Produce kept fresh, crisp
- * Waste and Spoilage Minimized
- * Larger Capacity
- * Smart Styling
- * Mirrored Superstructure for Twice the Display



WEBER FROZEL LOW TEMPERATURE SELF SERVICE DISPLAY CASE

- * Brilliant "Spot-light" Illumination
- * Clear View Front
- * Larger Merchandise Capacity
- * Distinctive Styling
- * Holds Temperatures of Zero and Below



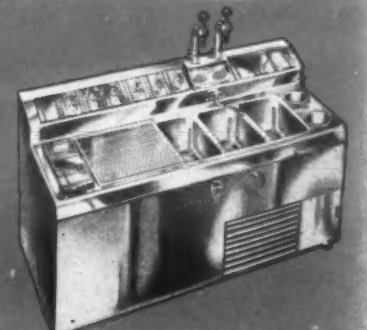
WEBER "DOUBLE-DUTY" DISPLAY MASTER MEAT CASE

- * Ten foot length
- * Wider vision... better display... easier access
- * Blind lower storage
- * Available in 7 foot length
- * Maximize shelf



WEBER SERV. MASTER "DOUBLE-DUTY" DISPLAY CASE

- * A Profit-Making All-Purpose Display Case
- * Reduces Shrinkage and Spoilage To Minimum
- * Double Capacity In Same Floor Space
- * "Spotlighted" Mass Display
- * Two Sealed Off sections, each cooled for refrigeration
- * Welded Steel Construction... Gleaming Porcelain Exterior

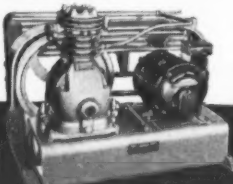


WEBER "BOSTAIL" THREE SINK SODA FOUNTAIN

- * Stainless Steel Top Die-stamped In One Piece
- * Auxiliary Service In Limited Space
- * All the Sanitation Features of Larger Models

Lipman
AUTOMATIC REFRIGERATION

"PIONEERS in the refrigeration field since 1917 LIPMAN Machines give dependable service, low cost operation. Designed for use with Methyl Chloride, Ammonia, Freon 12. Units are available in sizes from 1/4 thru 40 H.P.



GENERAL REFRIGERATION
DIVISION
YATES AMERICAN MACHINE CO., Beloit, Wisconsin

PURO
Electric
WATER COOLERS

BRANCHES IN PRINCIPAL CITIES
MAIN OFFICE
440 LAFAYETTE ST., N.Y. 3, N.Y.
PURO FILTER CORP.
OF AMERICA
DRINKING WATER SPECIALISTS
FOR 30 YEARS



Insist
on genuine

Marlo
Products

MARLO-HEAT TRANSFER
Since 1922

Wholesaling Can Mature Through Wise Use of Credit, Says F. K. Zimmerman

(Concluded from preceding page)

ever, it is of prime necessity for you to guide your own business' credit program with much more intelligent planning than has been required during the period just closing.

Third. It is to be remembered that this is a relatively new business group. Refrigeration wholesaling on its present scale has grown to what it is largely by the efforts of the people before me. Refrigeration wholesaling is not an old, settled, well-capitalized business group such as we might find in the plumbing, mill-supply, hardware, and automotive fields. You fellows haven't had time to make it that.

It will take its place with the other big wholesaling fields and produce wealth for you only as you intelligently guide it and as you conservatively invest your time and ingenuity and money in it. The refrigeration field has every ear-mark of its youth,

which must be overcome before it grows to strong manhood.

Several of these include the tendency to expand without the means of doing it solidly or successfully and without due regard to the competitive situation; the failure to retain sufficient capital in the business to handle with ease the seasonal fluctuations inherent in the trade; the cliquishness and gossip-mongering that crop out from time to time; and the aimless bitter competitive spirit that upon some occasions has wrecked the normal profit opportunities of all concerned to satisfy the false pride of a few individuals on a purely personal level.

Cooperation Builds Future

Perhaps all new businesses go through this cycle—I don't know—but I do know that your wholehearted cooperation through this association and exercising your best

business judgment will build this industry to the stature we all desire.

Fourth. I would recommend that through your association you do some work on helping you to determine what is required of a successful wholesaler in the way of capital structure—and then that you individually strive toward that goal. It would be immensely helpful to all of you to arrive at a goal that could be established at a small cost by having your association employ a trustworthy and competent accounting or financial-engineering firm to make a study of typical refrigeration wholesalers and recommend the financial and expense ratios that are necessary for successful and profitable operation.

Maybe this can't be done, but I'll bet it can—and you'd reap a harvest that few business groups have enjoyed by applying expert opinion to your individual businesses that you could not individually afford to employ. One of the advantages of being young is that you can do the unusual, and be stronger for having done it.

Finally, a word about the manufacturers' viewpoint on credits—which was what I was supposed to

talk about. As you probably know, I have been closely affiliated with REMA's credit activities since their inception in 1938. We were—and are—young in our field, too. But we've made some progress. In fact, we've done a better job on you than our creditors have done on us. We've had some real problems in our ranks since we last met—which is something we don't have to report about you, to the best of my knowledge.

Wolves Howl at the Door

It is true that there are some of you that couldn't stand much pressure at the moment, and maybe the difficulties that have recently occurred in our ranks could have been averted if our creditors had been as well organized as yours are to keep wolves from tearing down doors that have been financially weakened by the various factors we have just been talking about.

We have tried, in REMA, to pursue a helpful pattern of activity. We have, profitably, I think, counselled with numerous ones of you. We've tried to understand your problems, and we've tried to help you find solutions to your problems. And we

haven't had to crowd anyone into 77-B yet, because we've found excellent cooperation on your part and on the part of our membership.

We are getting more and more proficient because we are getting along better among ourselves. In a recent "close call" case where the wolf stood without, his lips smacking for the kill, the REMA group represented over 90% of the creditors and forced a satisfactory settlement of the difficulties; that wholesaler is today operating profitably, with nearly all obligations liquidated, his sales increasing, and his overhead cut by more than 30%. The proprietor is making a comfortable living, but finds that certain playtime luxuries will not be afforded by his manufacturing friends.

So, after a long struggle involving many mistakes and growing pains, we are today prepared to handle in pretty good style whatever credit problems arise. We believe that our cooperation is complete enough to avoid letting many of our customers go off the deep end. We have the best spirit of cooperation between ourselves and between you and ourselves that we have ever enjoyed. We hope to keep it that way and hope that your progress will be such that individual meetings between you and our group will be wholly unnecessary, except to buy a drink, of course.

'48's GREATEST VALUE FOOD MERCHANDISING EQUIPMENT AT NEW LOW PRICES

The Big "Baker's Dozen" For The Profit-Wise!

Take a tip from the thousands of Weber users who say—"you need help to sell merchandise. We've found Weber Refrigerated Equipment does its job of merchandising 'to the Nth degree.'"

Brilliant styling... better refrigeration... dependable quality... merchandising "know-how" are designed into Weber Equipment to give you greater profits through faster turnover... lower operating costs... and longer-life.

Whatever refrigerated food merchandising equipment you need, the "Best Equipped Dealer In Your Territory" can serve you now! At his beck and call is the staff and services of one of the Four Weber Regional Offices assuring him and you faster deliveries, expert product servicing—direct "factory" contact.

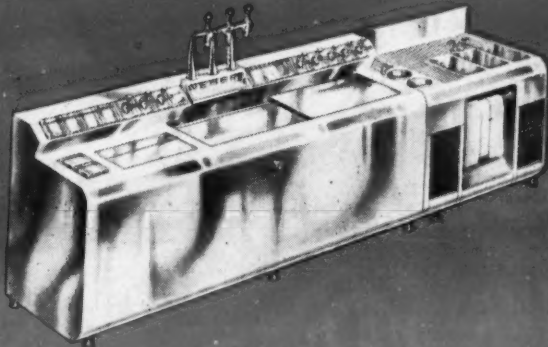
So—for your greatest food merchandising equipment value in '48... "SEE WEBER BEFORE YOU BUY."

YES! SUCCESSFUL MERCHANTS SAY—"YOU SELL WORLDS OF MERCHANDISE WITH WEBER."



WEBER "ENDLESS-VIEW" DISPLAY MASTER MEAT CASE

- ★ Used as single units or joined for "Endless-View"
- ★ Economical rearrangement of store layout any time
- ★ Better display... wider vision... easier access
- ★ Two added square feet of profitable display space



WEBER ROLL-A-DOOR SODA FOUNTAIN

- ★ Stainless Steel
- ★ JAR-PUMPS and Fruit Jars
- ★ Roll-A-Doors
- ★ Toe recess
- ★ Slant Service Edges
- ★ Perfect Operational Balance Point
- ★ 35% greater ice cream capacity

WEBER COMPLETES THE LINE

- WEBER WALK-IN COOLER WITH FULL-VIEW SELF-SERVICE DOORS—it's sectional
- WEBER MASTER VALUE REACH-IN REFRIGERATORS—Equipped with either glass or solid doors
- WEBER "FOUNTAINETTE"—Small, but amazingly versatile
- WEBER SECTIONAL "LUNCHEONETTE" EQUIPMENT—Line up or use separately
- WEBER WALL-TYPE REFRIGERATED SELF-SERVICE DISPLAY CASE—Dairy and Delicatessen Products



REMEMBER: PROFIT PLANNING MEANS THE PLANNED INSTALLATION OF WEBER EQUIPMENT

New Display Cases Help Grocer Triple Sales

CHEYENNE, Wyo.—Sales at the Fred Gage Grocery & Market, 3223 Snyder Ave., have more than tripled since it was completely remodeled recently and equipped throughout with modern self-service refrigerated display cases, according to the proprietor.

Bob Spates, food store engineer and designer with the Gordon-Lozier Corp. of Omaha, Neb., designed the remodeled and expanded store.

A feature of the new equipment is a self-service meat section with a reach-in refrigerated display case adjoining the two new meat display cases of conventional design. A huge self-service case for dairy products has been installed, and it adjoins a series of self-service, refrigerated cases for produce.

Meat Dept. Goes Self-Serve

UTICA, N. Y.—The first 100% self service meat cases in Utica are a feature of the new Acme Super Market at 1904 Genesee St.

Customers are invited to help themselves to what they want from the refrigerated cases. Every meat item is plainly marked and kept fresh by constant refrigeration.

U. S. PAT. 2,318,381
CANADA PAT. 274,729

NEW DESIGN PATENT
82,339

COMMERCIAL DOMESTIC

"RECORD"

EVAPORATORS
Originators and
Developers of
**WATER
DEFROST**
Humid Air
Evaporators

Leading the field in the development of refrigeration, evaporators for use on high and low temperature applications, "RECORD" products have a dependable record of performance. "If it's a 'Record'—it's right."

**REFRIGERATION
ENGINEERING, INC.**
7250 East Slauson Ave.
Los Angeles 22, Calif.

Insist
on genuine

Marlo

Products

MARLO-HEAT TRANSFER
Since 1925

THE FOURTH 'R'

Druggist Educates Patrons
On Refrigerating Candy

ALBANY, N. Y.—Installation of a refrigerated candy department in Barton's Pharmacy, 324 Delaware Ave., has been the occasion for the education of the public on the care of candy, reports Owner Willard K. Barton.

After the first few customers commented on the new addition, Barton discovered that most of these people thought the purpose of refrigeration for candy was to keep the temperature low. They were surprised to learn that the temperature is in the sixties, and he got a chance to show them how the unit operates.

Realizing that the public did not know too much about this subject, he made it a point to talk to other customers about candy refrigeration. Candy sales have risen, as a result, and he expects a more marked increase during the summer.

One special feature Barton likes is that it allows display of candy under glass.

National Appliance Sales Firm Set Up by Edelmuth

KEYPORT, N. J.—Formation of a new national sales organization specializing in the appliance, radio, and television fields was formed here recently by David L. and William F. Edelmuth.

To be known as Edelmuth Brothers, the firm is now concluding arrangements for national representation of several lines.

David Edelmuth recently resigned as manager of major appliances, radios, and musical instruments for Gimbel Brothers in New York City to participate in the new venture. Prior to joining Gimbel's, he was for five years vice president in charge of sales and director of the Grand Home Appliance Co. of Cleveland, a manufacturer of gas ranges.

David has also been manager of the major appliance division of the Associated Merchandising Corp.

William Edelmuth has a variety of experience in various marketing activities and has been mayor of Kingston, N. Y. for three terms.

Short-Term Buying, Stable Inventories Reported In Chicago

CHICAGO — Short-term buying, faster deliveries, and generally stable inventories in this area were reported for the month of January by the Purchasing Agents Association of Chicago.

Of the local companies surveyed 91% indicated that they were buying for periods of three months or less, and many said their needs covered only a 60-day period, according to the association report.

Two out of three participating firms reported that prices during January were somewhat higher than those in December, that raw material inventories rose slightly, and that, for the most part, company inventories of purchase parts remained steady.

Replies from the purchasing agents sampling reflected an employment, production, and order-backlog picture that was little changed from December.

Better Business Bureau, FTC Disagree on Legality of Term 'Free' In Tie-In Sales

WASHINGTON, D. C.—An article that is offered with the purchase of some other article or service is not "free," the Federal Trade Commission recently told the National Better Business Bureau.

The bureau immediately put itself on record as disagreeing with the FTC.

In reply to queries by the Bureau seeking a clarification of the FTC's position on the use of the term in advertising, W. T. Kelley, chief counsel for FTC, wrote:

"The use of the word 'free,' or words of similar import, in advertising to designate or describe merchandise sold or distributed in interstate commerce, that is not in truth and in fact a gift or gratuity or is not given to the recipient thereof without requiring the purchase of other merchandise or requiring the performance of some service inuring directly or indirectly to the benefit of the advertiser, seller, or distributor,

is considered by the Commission to be a violation of the Federal Trade Commission Act."

The National Better Business Bureau pointed out that, though there has been no change in the law itself on the use of the word "free," the FTC in its administrative rulings has completely reversed its former position.

That former position, as cited in an opinion issued by the FTC in the Samuel Stores, Inc. case in 1938, was stated by the Better Business Bureau as follows:

"The real test, except where the practice is employed by large concerns to eliminate weaker competitors, is whether there is a deception of the purchaser or use of a lottery method or chance device in the distribution of the 'free goods.'"

"Where, as in this case, advertisements offering the 'free goods' clearly and conspicuously state the terms and conditions under which the 'free goods' may be secured, the merchant does not occupy a monopolistic or near-monopolistic position, the 'free goods' are not distributed by lot or chance, and there is no deception through fictitious price marking of the goods sold, or through substitution of inferior merchandise, or otherwise, the 'free goods' offer does not constitute in the opinion of the Commission an unfair method of competition, and the complaint is accordingly dismissed."

In view of this apparent reversal of position, the Bureau has issued a statement of its own position as follows:

"The National Better Business Bureau respects, but does not agree with the administrative ruling of the Federal Trade Commission in this matter. It intends to raise no question with national advertisers who use the word 'free' fairly and without deception as described by the Commission itself in the Samuel Stores, Inc. opinion and its brief in the Standard Education Society case.

"We sincerely hope that, if the Commission issues a cease and desist order in a case involving the lawful use of the word 'free,' as previously defined herein, the respondent will appeal the order through the courts so that a court ruling may be had for the information and guidance of all concerned."

FRIGID-FREEZE

DISTRIBUTORS

Are Cashing in Big on "Salesational" Facts and Figures like these:

Reports from all over the country indicate sensational sales increases of frozen foods and ice cream wherever the FRIGID-FREEZE "Spot-Special" is in use:

● **GRAND UNION SUPER MARKET—NEW YORK.** A "Spot-Special" was installed in November, 1947, and stocked with ice cream. This store has been selling ice cream for 7 years . . . has accurate figures on sales for each month. The "Spot-Special" was purposely placed in the same location as the regular cabinet. The results:

Nov. 1946 with former cabinet	Nov. 1947 with "Spot-Special"	Increase with "Spot-Special"
85 gallons	179 gallons	*111%

*NOTE: This increase in sales was made despite an over-all industry drop in November of 29%.

● **SNOW CROP DISTRIBUTORS—KANSAS CITY, MO.,** placed a FRIGID-FREEZE "Spot-Special" in a Kroger Super Market, to test its performance in selling a "Budget Bundle" of frozen foods, at the same time that a nationally famous competitor was advertising and selling a similar complete dinner unit, from a conventional 20 cu. ft. cabinet. Results:

Conventional Cabinet	"Spot-Special" Cabinet
31 units	87 units

Likewise, over a 2-day period, the "Spot-Special" was used to sell a "special" of frozen Parker House rolls. The results:

The "Spot-Special" sold 27 doz.—324 packages! NOTE: The "Spot-Special" holds an average of 20 dozen frozen food packages.

● **VILLAGE MARKET—WILTON, CONN.,** installed a FRIGID-FREEZE "Spot-Special" in October, 1947, stocked it with ice cream. Despite seasonal decrease, sales climbed from 72 gallons in September (with the conventional cabinet) to 107 gallons in October with the "Spot-Special".

● **THE BRIDGFORD CO.—LOS ANGELES, CAL.** This well known packer of frozen peas placed a FRIGID-FREEZE "Spot-Special" on test in 3 Piggly-Wiggly Stores in San Diego, to compare its sales of frozen peas with a conventional full-sized cabinet carrying the same item. The results:

Store	Conventional Cabinet sold	"Spot-Special" sold	Increase
No. 1—7 days	30 units	204 units	7 times
No. 2—11 days	40 units	144 units	3½ times
No. 3—6 days	13 units	216 units	16½ times



Reprinted from
N. Y. Journal of Commerce
January 12th

The FRIGID-FREEZE Distributor has something sensational to offer that nobody else can match. For the combination of exclusives in FRIGID-FREEZE equipment that we call "Merchandising Magic" is increasing the sales of frozen foods and ice cream to a surprising extent.

It is doing even more than that: it is setting new sales patterns wherever the new FRIGID-FREEZE cabinets are used.

IN 1948 . . MORE FROZEN FOODS WILL BE SOLD OUT OF FRIGID-FREEZE CABINETS THAN OUT OF ANY OTHER MAKE:

Mark these challenging words that are based on conclusive facts and figures such as are submitted here . . . and are being reported regularly from every part of the country.

Accept this statement as the FRIGID-FREEZE theme of action in 1948 and our invitation to you to wire or write today for further details of the FRIGID-FREEZE Distributor-Dealer Program.

A few territories are still open, offering big returns for hard-hitting representation.

Just plug in - and use
"Character"
THE WORLD'S SMARTEST
Self-Contained Florist Display Refrigerators

- Utilized
- Stainless Steel Front
- Large, Display Glass Sliding Doors
- Fluorescent Lighting
- Genuine Ceramic Tile Floor
- Black Panelite and Stainless Steel Trim
- Stepped-Up Display Stands

No. 630 Junior S/C
Size 72" x 34" x 86"
Write or call for our latest literature

Character REFRIGERATORS Corp.
Formerly A. & S. Refrigerator Co.
645 BROADWAY—NEW YORK 12, N.Y.
Tel: GRamercy 7-3590

Diffusion Type
UNIT HEATERS
For low-pressure steam and hot water

Wall and Ceiling
DIFFUSERS

For all above-freezing applications
CATALOG ON REQUEST
MERCHANT & EVANS CO.
PHILA. 46, PA.

DISTRIBUTORS
REFRIGERATION-HEATING PARTS AND SUPPLIES

We carry a stock to fill large and small orders. Fully equipped to handle export shipments.

Automatic HEATING & COOLING SUPPLY
DIVISION OF WEIL-MCLAIN COMPANY
647 W. Lake St., Chicago 6, Ill.
Branch—809 West 74th St., Chicago, Ill.
March 1, 1948 Discount Sheet and Supplement
Mailed on Request.



REFRIGERATION CORPORATION OF AMERICA
GENERAL OFFICES AND FACTORY: BARBER, NEW JERSEY • A DIVISION OF NOMA ELECTRIC CORPORATION

YOUR SALESMEN CAN SELL THE MERITS OF YOUR

EQUIPMENT...ITS CAPACITY, EFFICIENCY...

DESIGN AND CONSTRUCTION. WHEN ALL IS SAID

AND DONE, MORE THAN 50% OF YOUR PROSPECTS

ARE GOING TO REQUIRE TIME TO PAY. ISN'T IT,

THEN, IMPORTANT TO HAVE THE SOUNDEST TIME-

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MORE THAN 300 OFFICES IN PRINCIPAL CITIES OF THE UNITED STATES AND CANADA

See Market for Coolers In S. African Mines

PHOENIX, Ariz.—What may be the entering wedge in establishing a market for evaporative coolers in South West Africa—a sample order for eight units from an American operated copper mining company there—was being readied for shipment early this month by the Polaire Cooler Co. here.

Polaire is the first local firm expected to make a bid for the new market, declared D. L. Bouse, Valley National Bank field representative who contacted the mining corporation.

The coolers were ordered for homes of Americans working in mines operated by the Tsumeb Corp., Ltd., he stated. He explained that Tsumeb employs nearly 600 Americans, many former Arizona copper miners, and plans a colony of 500 homes for them on its property.

Bouse expressed the hope that each one of these homes will be equipped with a locally made evaporative cooler.

Not Like the Old Days

Wyoming 'Trading Post' Utilizes Variety Of Modern Refrigerated Fixtures

CHEYENNE, Wyo.—The largest installation of refrigerated display cases in Wyoming is a feature of the Wyoming Trading Post which has just been opened one mile south of Cheyenne on the Denver highway. The store is constructed entirely of solid native logs, and includes a supermarket which is said to be the finest in the state; complete hardware, home appliance, and farm implement department, snack bar, package liquor store, and a filling station.

The meat cases, self-service reach-in dairy products and frozen foods display cases were installed by the Wyoming Refrigeration & Equipment Co. of Cheyenne. A large refrigerated vending case for wines and beer, with three clear-vision glass doors also has been installed in the package liquor store. Ranchers Gas & Supply Co. furnished the propane-butane gas heating system.

Proprietors of the new eight-in-one

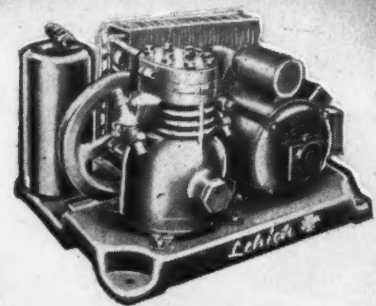
store are Floyd L. Brown, who has been in the retail food business in Cheyenne since 1941; Russ Brown, a veteran of 20 years in the grocery and meat business, who will manage the meat department; and A. W. Michelson, who came to Cheyenne from Washington last June and who will manage the appliance, hardware, farm implement, and gas and oil departments. He has been associated with the Cheyenne Hardware store and Mid-Continent stores in Cheyenne and plans to continue operation of those establishments. Philco refrigerators, home freezers, and radios will be featured at the Trading Post.

Refrigerated meat, produce, dairy products, and frozen foods display cases are arranged in L-shape on the back and one side of the supermarket. Fluorescent lighting and rustic display fixtures enhance the appearance of the new establishment.

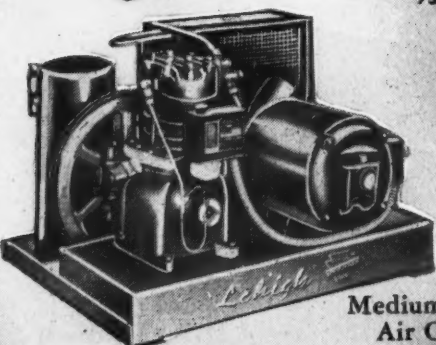
'New Look' for the Retail Liquor Store



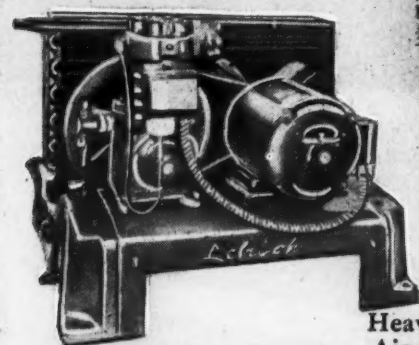
Howard Cottle, manager of the newly opened West Hills Liquor Store in Los Angeles, getting a cold bottle from the Tyler full-length full-vision refrigerated case installed by Perfecold Refrigeration Co. of Los Angeles. Special lighting draws attention to the case at night.



Package Type
1/4 H. P.
1/2 H. P.



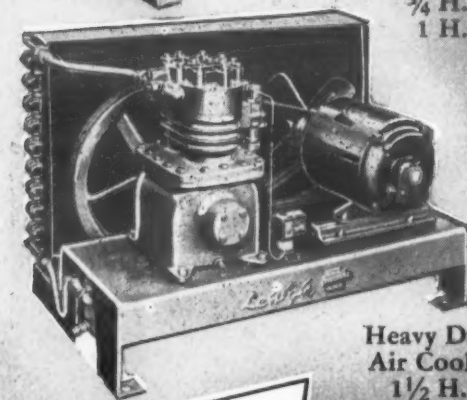
Medium Duty Air Cooled
1/2 H. P.
3/4 H. P.
1 H. P.



Heavy Duty Air Cooled
1/2 H. P.
3/4 H. P.



Heavy Duty Air Cooled
3/4 H. P.
1 H. P.



Heavy Duty Air Cooled
1 1/2 H. P.
2 H. P.

104 MODELS ALLOW PRECISE SELECTION

to meet every commercial
and industrial need.

Lehigh BLU-COLD Condensing Units now give the refrigeration user the equivalent of a 'custom-made' unit rated and designed precisely to capacity and duty requirements.

This great flexibility between 1/4 H.P. and 5 H.P., not only makes proper compressor selection easy but leads, as well, to more satisfactory and economical operation.

RELIABLE A.S.R.E. RATINGS

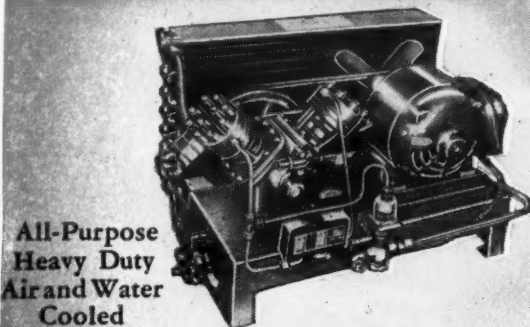
Lehigh is justly proud of the excellent record enjoyed by BLU-COLD units—a record substantiated by reports from many thousands of users in all fields. Part of Lehigh BLU-COLD success in the field is due to the reliability and accuracy of BLU-COLD BTU ratings. These ratings are made under the most critical of conditions under rigid A.S.R.E. code requirements. Lehigh BLU-COLD BTU ratings can always be duplicated on the job with standard Lehigh equipment.

AVAILABLE NOW—

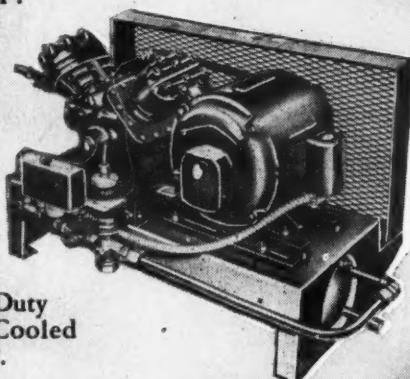
For High, Medium, or Low Temperature Freon or Methyl Chloride

- ★ **PACKAGED AIR COOLED**
1/4 H.P. 1/2 H.P.
- ★ **MEDIUM DUTY AIR COOLED**
1/2 H.P. 3/4 H.P. 1 H.P.
- ★ **HEAVY DUTY AIR COOLED**
1/2 H.P. 3/4 H.P. 1 H.P. 1 1/2 H.P. 2 H.P.
- ★ **HEAVY DUTY WATER COOLED**
3/4 H.P. 1 H.P. 1 1/2 H.P. 2 H.P. 3 H.P. 5 H.P.

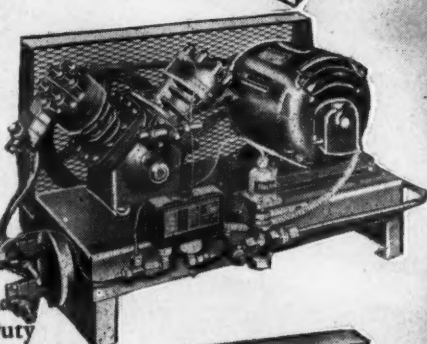
See general catalog for complete specifications



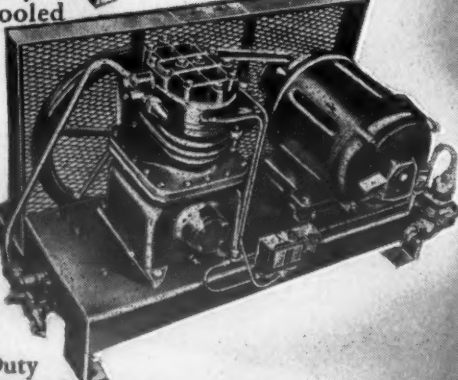
All-Purpose Heavy Duty Air and Water Cooled
1 H. P.



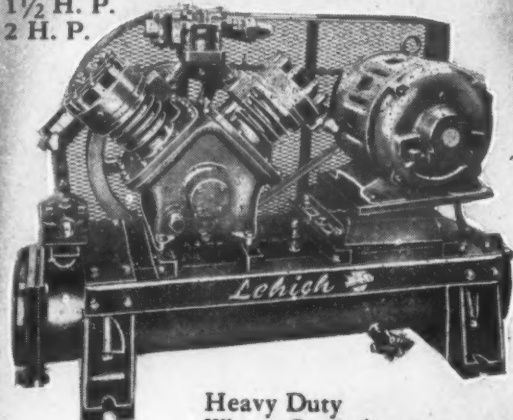
Heavy Duty Water Cooled
3/4 H. P.



Heavy Duty Water Cooled
1 H. P.



Heavy Duty Water Cooled
1 1/2 H. P.
2 H. P.



Heavy Duty Water Cooled
3 H. P. 5 H. P.

Full-Vision, Refrigerated Case Proves Salesman For Bottled Goods

LOS ANGELES—That "new look," once confined to women's styles, is now being sported by liquor stores, thanks to modern commercial refrigeration.

The West Hills Liquor Store at 10451 Santa Monica Blvd., Los Angeles, is a good example of what the latest designs in commercial refrigeration can do for the average small store.

When Owner Douglas H. Graham decided to open a store in Los Angeles, he called in sales representatives of Perfecold Refrigeration Co. of Los Angeles to help him plan a layout. The result was a gleaming, modern liquor store packed with sales appeal.

To give the store that "modern touch," Perfecold sales engineers installed an 8-ft. Tyler case, which would attract the eye of even the most hardened shopper.

Howard Cottle, store manager, has found that the 43 sq. ft. of shelf space in the Tyler case makes beer displays an easy job.

Cottle says the case is especially effective at night when merchandise can be brilliantly illuminated with fluorescent lighting which is built inside the refrigerator for maximum and even distribution of light.

Fay Takes Post with G-E Air Conditioning Dept.

BLOOMFIELD, N. J.—C. L. Fay has been named engineer of General Electric's technical services engineering division of the air conditioning department, W. E. Johnson, manager of engineering for the G-E department, has announced.

A graduate of Rensselaer Polytechnic Institute, Fay was formerly associated with Bell Aircraft Corp. where he served as assistant to the vice president in charge of engineering.



Washer-Specializing Dealer Operates Automatic, Self-Serve Laundry Next to Display Room As Key to Additional Sales

WEST PALM BEACH, Fla.—One of the most unusual appliance dealerships in the South is H. G. Barger's, West Palm Beach, a firm which has built a never-ending stream of major appliance prospects by devoting one-half of its building at 1855 South Poinsettia to a combination automatic and self-serve laundry.

H. G. Barger, head of the firm, is an old-timer in the appliance business, having concentrated on laundry equipment for many years. Until 1943 he operated an appliance sales and service store in the San Fernando Valley in California, switching 3,000 miles across the country to enter the same field in the Palm Beach area. During 1946, with only limited supplies of new appliances, but a large service shop and the self-serve laundry, he did a volume of better than \$80,000, and for 1947, with new appliance deliveries, he will have done well over \$100,000.

13 Lines of Washers

The firm is franchised with some major appliance lines—and 13 lines of washing machines. As a washing machine specialist, Barger has created some sensational sales for supplying manufacturers.

The West Palm Beach store is divided into two sections, with the complete appliance showroom, repair shop for all major and small appliances and warehouse space on the left, and the self-serve laundry on the right. The laundry is the second with which Barger has experimented in the city; and is remarkable for the fact that it contains both automatic laundry equipment and conventional washing machines hooked up to convenient double sinks, allowing the customer to handle both as she wishes, and to make up her own mind as to which she likes.

90% of Users Are Buyers

Barger and his three salesmen regard every self-service laundry customer as an appliance prospect, and 90% of the refrigerators, ranges, washing machines, home freezers, and radios sold to date have gone to customers who got their first contact

with the firm through the "laundry department" as Barger terms it.

Barger invested \$100,000 in his plant, including the lot, building, equipment, shops, employing four mechanics, and a parking lot which can accommodate 20 automobiles. Self-serve laundry customers find six Laundrall automatic washers available in the left of the laundry area, for which they pay 35 cents per load, and 18 novel Maytag setups, which include two conventional Maytag washers, mounted side-by-side, with a single wringer in between, two laundry tubs, and an overhead plumbing system for hot and cold water in the tubs. Barger worked out this setup himself, using Maytag parts to construct the units, and finds his customers about evenly split between the two.

For the Maytag service, the laundry charges 60 cents per hour.

One of the most striking innovations which he built in was a battery

of three Huebsch commercial laundry tumblers, which swiftly dry clothing if the customer wishes. These are installed in the right rear, and are charged for at the rate of 1 cent per minute, the customer checking in and out at a desk in the front of the laundry area.

Appliance promotion is keyed so closely to the laundry that it is difficult to see where one begins and the other leaves off. A large waiting room at the front, with four sofas and many chairs is likewise an appliance showroom, washing machines, refrigerators, etc., being constantly demonstrated by two floor salesmen.

Barger's theory is that when a customer of the laundry becomes familiar with both conventional and automatic washing machines, she is susceptible to the idea of owning one herself; therefore, many sales have been made directly from the laundry section.

Likewise, customers for refrigera-

tors, ranges, and other appliances are frequently developed through conversation on washing machines, whereupon the customer merely steps through a partition into the major appliance showroom. Home freezers are frequently sold to laundry customers, and the names of all laundry customers, with their potential appliance purchases, are on file.

Follow-Up Man Keeps Busy

One outside man follows up these tips, armed with a long list of appliances, and relatively sure that the prospect is familiar with Barger's. With anywhere from 80 to 100 women per day coming in, the majority of them local housewives, it is easy to see that this organization will never suffer from lack of prospects. More salesmen will be added later, in the ratio of merchandise received, and will alternate between floor time and outside calls.

Floor time in the store, with the constant stream of traffic is rich with possibilities, and salesmen will be on their toes to ferret out which customers are most likely to buy a washing machine first, then other appliances.

The service department is on a similarly large scale, with four mechanics specializing in refrigerator repairs, ranges, washing machines, and radios, plus small appliance work. Most of last year's \$80,000 volume came from laundry income and service profits, and the department is due to be enlarged more in the near future.

Barger's selling theory is simple—bring in all the most logical appliance prospects with the laundry, demonstrate all home appliances when you have their confidence, and follow up with a sale!

Service Company Sets

Up Appliance Annex

MANCHESTER, N. H.—The Eastern Refrigeration Service at 593 Elm St., specializing in commercial refrigeration, has announced the opening of a household appliance annex at 607 Elm St.

The new establishment carries a complete line of home appliances such as Kelvinator electric ranges and refrigerators, vacuum cleaners, ironers, and other items for the home.

*When the customer
can't make
up her mind...*

**POINT TO THE
DU PONT SEAL**

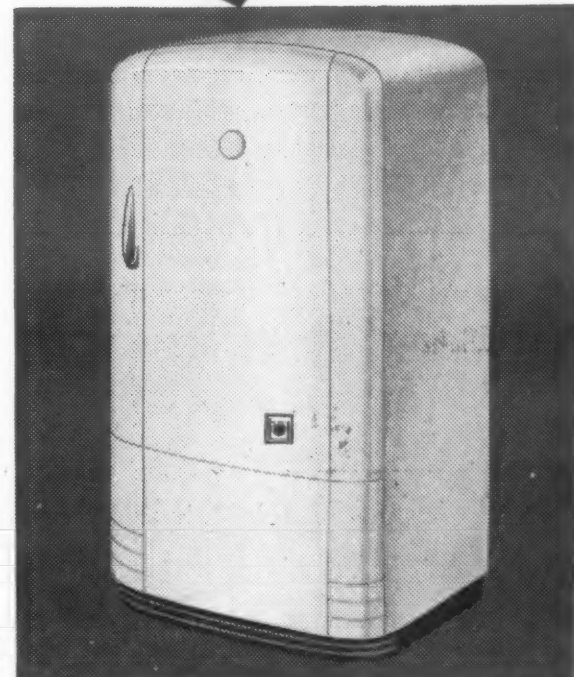


**It identifies America's leading
kitchen appliance finish!**

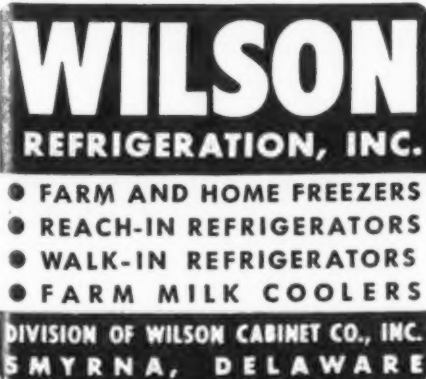
Flash a brief—but effective—message on a quality finish by showing the "Dulux" seal to your prospects! It assures them at a glance that they're getting a finish incorporating color retention, mar-resistance, and outstanding good looks for years of service. And, at the same time, you can tell them, too, that "Dulux" is rigidly pre-tested!

If your manufacturer supplies you "Dulux"-finished appliances without the seal, ask him to include it hereafter. It paves the way to quick sales... assures your customer of the quality of the product.

E. I. du Pont de Nemours & Co. (Inc.), Finishes Division,
Wilmington 98, Delaware.



TYPHOON AIR CONDITIONING CO., INC.
Division of Ice Air Conditioning Co., Inc.
794 UNION STREET • BROOKLYN, N. Y.



INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)
at least half in the government's "take" from each dollar of personal income.

Even so drastic a reduction would leave the spending of individual incomes much more restricted than they were in the decade following World War I.

It seems that most of us were born too late.

Rural Market Beckons

Hints are being whispered into some of the right ears around the industry that a new kerosene-operated refrigerator or two may be ready for distribution next year. So consistent and insistent has been the demand for this product that numbers of refrigeration engineers have

been working on absorption system machines during the last couple of years. The problem of designing an absorption machine which does not conflict with existing patents is apparently a tough one; but it appears that the engineers think it can be done.

Dealers who have specialized (like Abou Ben Adhem, may their tribe increase!) in selling gasoline or kerosene-operated refrigerators to farm homes declare that sales resistance to this product rates among the lowest of any they have ever tried to sell. Farmers generally have big families of hearty eaters; and the problem of satisfactory food storage has always been a brow-wrinkler for them. Ice is rarely delivered on rural routes, and if electricity is not available, the absorption type refrigerator operated by kerosene, gasoline, or compressed gas is a Godsend to many farm homes.

Electrolux, which has done an outstanding job of supplying this demand (and, incidentally, made the way very easy for possible competitive salesmen by putting out refrigerators which work like a charm and

gather goodwill) maintains that the only limit there seems to be to their sales volume on this product is the number of qualified dealers they can interest in pushing it.

It would appear, moreover, that the prospects for selling electric refrigerators to the rural market will be greatly improved in certain localities. Already the Rural Electrification Administration has approved projects that will bring electrical service to many thousands of farm homes which have never known the joys and conveniences of the magic genie before. More will follow.

Construction of these power lines is now in progress.

It is also interesting to note that loans will be available to farmers for house wiring, and for the purchase of electrical appliances and electrical farm equipment. The Rural Electrification Administration realizes that the power lines they erect must be used adequately in order to be justified, and hence will be selling farmers on the idea of borrowing money from the government to buy electric refrigerators, ranges, washing machines, pumps, utility motors,

etc. These loans will be made chiefly by the Electric Home & Farm Authority, which will finance the paper on sales made to these new rural customers by local dealers.

Refrigeration dealers who go after this business will probably also find a ready market for electric water pumps, which will bring running water into farm kitchens, and make possible—in most instances for the first time—the installation of inside bathrooms and sanitary equipment. This is a product for which few dealers have acquired a franchise, but seems to be a definite profit possibility.

From the standpoint of manufacturers of both absorption and compression type refrigeration equipment, it would seem that promotion directed to the farm market might be highly fruitful of results during the next few years. Large-sized household refrigerators, milk coolers, freezers, and meat coolers can be sold in profitable volume to this practically untapped market. Farm income has jumped materially in the last few years, and the farmers are enjoying the thrill of spending real cash again.

Moreover, the opening up of electrical service to thousands of farm families which have never enjoyed it before will be almost like the unfolding of a miracle. It will be uppermost in the minds and conversations of these newly electrified homes, and salesmen will do well to "get 'em while they're hot."

Good Salesmen Are Born—Also Made

SALESMEN, to many operating executives, are problem-children. You can't run the business without 'em, but wouldn't it be nice if you could? Yet, you'd miss 'em, at that. They're the boys who put the punch and the excitement and the dash and color and drama into business. They're also forever getting you, and themselves, into scrapes.

But what bothers some executives most about salesmen is their unpredictableness, the wide variation between the lowest and the highest salesmen in every crew. How are you going to know when you hire a man that he will be a winner? And then what do you do to get him out of a slump?

One manufacturer we know hires only blue-eyed salesmen. He claims that a long period of trial-and-error tests have proved to his entire satisfaction that blue-eyed men make the best salesmen. This organization operates on a nation-wide scale, too; with branches in many cities.

Others have certain measuring sticks to which they make some pretense of adhering when choosing their salesmen. But in the main, most executives seem to wind up with the admission that good salesmen are born, and not made.

That being true, when they want to step up the results from their own sales staffs, they think in terms of hiring away star performers from competitors.

Several years ago a prominent executive in the refrigeration industry was heard to remark: "If only you could breed good salesmen, like race horses, business could become more of a science. As it is, luck is a large factor in the success of any enterprise, and that luck may largely

be interpreted as the quantity of good salesmanship which happens to align itself with the fortunes of the enterprise."

This large-scale resignation to belief that the spark of salesmanship is somehow accidentally imbedded in the genes is reflected in the prevailing method of paying salesmen (in this industry, at least) on a commission basis.

Those who favor this plan usually defend it by saying that it is the simplest method of being fair to (1) the company and (2) the salesmen. Salesmanship being an indefinable, God-given quality, the only just method of determining its proper compensation is on direct ratio to results obtained. Or so the apologists for the commission basis will argue.

However, some observers have noted that many concerns which have maintained an excellent record of progress and earnings down through the years have been inclined to disregard, to some extent, the great differences between the apparent effectiveness of their various salesmen. These concerns usually pay salaries, with special incentives added.

Their theory is this:

Repeat business is the basis for the long-pull success of any enterprise. And repeat business is built on continued customer satisfaction. This calls for salesmen who think in terms of service to the customer, rather than immediate volume. The commission salesman, they aver, is too apt to think largely in terms of getting the business now, rather than building goodwill for the long haul.

Let the star salesmen, the "born" producers, concentrate on getting new business, say these executives. Pay these star salesmen well, and in a fashion commensurate with their results. But don't expect to keep them. If a competitor doesn't proselyte them first, they'll likely leave on their own accord when new fields for their pioneering begin to open.

But the salesman you hope will stick with you is the man who gives such good service to your accounts that they will want to give you their business even when competition cuts the price, or comes out with something flashy. These salesmen, the repeat-business type, concentrate on getting more business out of present customers—but never at the expense of the customers' own best interests.

By securing quantity orders, rather than dribbles and trickles, these men strive to make each account profitable. As they succeed in building their various accounts, they should be given extra compensation. (These incentive rewards, incidentally, should be given soon after the deed is done, and not postponed until the end of the year.) But their base pay should be a regular stipend—one that they can count on. If they can count on their pay, you can count on them.

To sum up:

1. The commission form of salesmen's compensation is probably the fairest for the salesman and the employer—but not for the customer.
2. In a relatively new industry, the commission plan seems to get best results.
3. For the "long-pull"—which depends on repeat business and continuity of good relations with customers, best results are obtained by paying salesmen salaries, or salaries-plus-timely-incentives.



It takes money to support a government. Plenty of money . . . any form of government. And, throughout recorded history, funds for government have been derived from taxes levied upon groups and individuals. The government of the United States, through its many diversified activities in the interests of all its people, has become, in a sense, the largest single service business the world has ever known. Of the total budgeted amount required to conduct this business during 1947, nearly \$.25 out of every \$1.00 came from taxes paid by America's successful free competitive business organizations.

Tecumseh Products Company, as a corporate "stockholder" in America's free future, has consistently contributed toward the operation of its local, county, state and federal governments. Based on increased income from a growing volume of business, its taxes have jumped from approximately \$3,600 in 1935 to over \$1,600,000 in 1947.

TECUMSEH PRODUCTS COMPANY

Tecumseh, Michigan

25 Packaged Units Cut Plant's Man-Hour Losses

CINCINNATI — Air conditioning 48,000 sq. ft. of factory and office space with 25 packaged units has provided a solution to costly losses of man-hours due to excessive summer heat at Fashion Frocks, Inc. here, Ph. Meyers, president of the firm, has indicated.

During the 1947 summer, one of the hottest on record locally, not an hour of working time was lost because of the heat, he declared.

The firm, which is said to be the largest manufacturer of dresses selling directly to consumers, has 33,000 sq. ft. of sewing room and 15,000 sq. ft. of office space.

The Chrysler Airtemp packaged air conditioners were installed by Smith & Lowman, Inc., local Airtemp dealer. By using the packaged units instead of a central system, zone control of temperature conditions is possible.



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Westinghouse Surveys Salesmen

Testify Appliance Labels Give Dealer Sales-Points, Customer Tips on Use

MANSFIELD, Ohio — The new "Tell-All" informative labels, sent out with all Westinghouse appliances are hailed by appliance salesmen across the nation as proving helpful in selling appliances in a number of ways, a recent survey made by the manufacturer reveals.

The survey, which covered floor salesmen in 312 Westinghouse outlets located in 35 cities, also found that:

In all except department stores, the tags are generally placed on the outside of appliances. Department stores seem to prefer to put them inside a refrigerator or range.

A majority of the salesmen felt that the tags on a refrigerator would last longer if they were placed inside. Almost all (98%) of the informative labels are left in place when delivery is made.

Most salesmen liked the tags as they are and could offer no means of improving them.

When improvements were suggested, the most popular one was to get a better method of attaching the labels so that they could not be torn off.

Customer Tears Off Label

On this last point, however, the survey report noted that: "In our opinion, if a potential customer is sufficiently interested to tear off an informative label to read it at home, to show her husband or friends, etc., she should not be prevented from taking it. Instead, some method should be provided for speedily replacing the informative label on the Westinghouse floor model."

In its summary of results, the survey commented, in part:

"Of the salesmen interviewed, 63% said the Westinghouse labels helped them 'frequently' in their selling; 80% found them helpful either 'frequently' or 'occasionally.' The remaining reported that the labels 'seldom' helped them in selling.

"Of the 732 labeled Westinghouse appliances (of a type that labels could be placed inside), 71% had their informative labels on the outside. Small and medium sized stores tend to keep the labels on the outside, whereas large stores tend to put the labels inside, presumably because of the heavier traffic and the greater likelihood that the labels will be torn off in the larger stores.

Dept. Store Tags Inside

"Only 61% of the Westinghouse appliances observed in large stores had outside labels, as against 82% for medium sized, and 89% for small stores. Only 49% of the appliances in department stores had outside labels, whereas 83% of electric appliance stores displayed the informative label on the outside of Westinghouse appliances.

"The pattern held generally throughout the different types of appliances. An exception was the labeled Two-Temp refrigerators on display in department stores. Of these, only 30% had outside labels and 70% had labels inside.

"In reply to a direct question on the subject of the location of labels with respect to refrigerators, 58% of the salesmen interviewed said that the manufacturer should attach informative labels on the inside, despite the fact that only 34% of the labeled refrigerators on display had the labels on the inside.

Attractive on Outside

"Comments showed that the salesmen felt labels would keep better and last longer if placed inside. Those favoring keeping labels on the outside emphasized the point that they would catch the customer's eye much better than if attached inside.

"One solution would be to attach the labels to the outside, but see that additional informative labels were available and that sales people were trained to replace them quickly.

"In general, the salesmen interviewed had few if any improvements to suggest. Most of them approved of the Westinghouse informative labels in their present form—some of them in glowing terms."

The survey also rated comments by the salesmen on the informative labels as a selling aid, their value to the customer, and suggested improvements, by the frequency of the comment.

What Salesmen Said

Comments most frequently made on the tags as selling aids and the number of times each was mentioned are:

Valuable information for salesmen (50). Backs up the salesman, people believe the labels, makes it official, builds confidence, etc. (29). Will be necessary in normal times with the return of the buyers' market (21).

Salesmen can look up information quickly, refresh memory (18). Shows specifications, exact dimensions without measuring (11).

Good selling points (10). Answers many questions customers usually ask (6). Arrests attention (3). Associates store with good firm (3). More in them than salesmen know (2). Saves "grief" calls (1).

On the value of the tags to the customer, the salesmen commented: Good information for the customer (42). Customers read them at home after delivery of the appliance (19). For the guarantee (15). Women depend on it for operation instructions (14). Further identifies the product (10).

Gives exact dimensions (8). Like cook book especially (5). First thing customers look for (2). Gives con-

cise picture of what the appliance does (2). Limits misrepresentation (1).

Suggested improvements in the labels were: Improve method of fastening by reinforcing holes (30). Use larger print for easier reading (8). Be sure that they are securely attached (7).

Make more colorful, more attractive, to catch the eye (7). Print price on (7). Less detail, too bulky (3). Attach with scotch tape (3). Leave price off (3). Paste label inside door (2). Do not paste label inside door (2).

Increase size of the name "Westinghouse" (2). More exact information on timing on ranges (1). Make more durable, especially for washers and refrigerators (1).

Detroit NERA Chapter Formed, Officers Named

DETROIT—J. L. Leeson, manager of the appliance department of Crowley, Milner & Co., was elected chairman of the Detroit Chapter of the National Electrical Retailers Association, at the chapter organization meeting held Feb. 11.

Other officers of the Detroit Chapter are E. C. White, Gardner-White Co., vice chairman, and C. E. Reiner, Moon Bros., Inc., secretary-treasurer.

Members of the board of control include: R. John Lewis, Wagner Electric Co.; Gene White, Gardner-White Co.; L. Pearl Williams, Radio City Sales Co.; William Fenske, The Good Housekeeping Shop; Charles B. Edwards, Jr., Western Appliance Co., Inc.; E. F. Hangstefer, Thomas Appliance Shop; Carl D. Primeau, Primeau Appliance Shop.

Plans for a membership expansion campaign will be given at a meeting of all appliance-radio dealers at the Detroit Edison Co. on March 8.

Albany Garage Co. Has New Corporate Setup

ALBANY, N. Y.—Albany Garage & Appliance Distributors, Inc. has formed a new corporation, Albany Garage, Inc., which will carry on both the garage and appliance business.

A separate corporation, Albany Appliance Distributors, Inc., has been formed for possible use in connection with the appliance business.

At a meeting of the corporation, Stephen Brown was re-elected president, as were other officers: vice presidents, Charles E. Godlove and Paul D. Mashburn; secretary, Joseph Besch; treasurer, Percy Smith.

G-E Supply Takes Victor

BOSTON—General Electric Supply Co. of Boston is now distributor of the Victor Products Co. line in the entire area of Maine, Vermont, New Hampshire, Massachusetts, and Rhode Island.

"Watch! One light lift releases ice cubes LIKE MAGIC!"



Let Inland superiority be an extra salesman in your store!

Want real assistance in your refrigerator and replacement tray selling? Of course you do! Then be sure to demonstrate Inland trays to your customers. Let their amazing quality and performance speak for themselves . . . and do a selling job for you!

The secret of Inland superiority? It's the ingenious "Magic-Touch" lever and release mechanism. One light touch instantly loosens sparkling, generous-sized, dry ice cubes from the "Magic-Finish" grids.

Because the cubes are released directly into the pan, there's no icy handling, no dropped cubes, no muss, fuss, or bother such as you find with ordinary ice trays.

Other features? Unrivalled good looks. Speedy freezing action of durable metal pan. And rugged construction throughout. The instant-acting pan lifter optional.

Write today for full details!

INLAND MANUFACTURING DIVISION
General Motors Corp., Dayton, Ohio



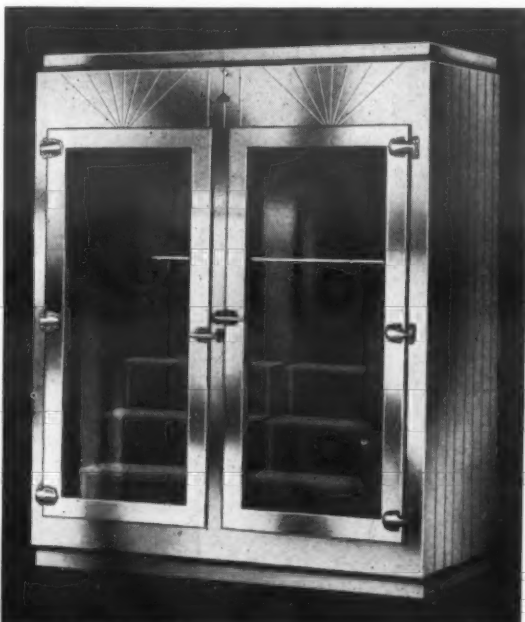
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REFRIGERATORS

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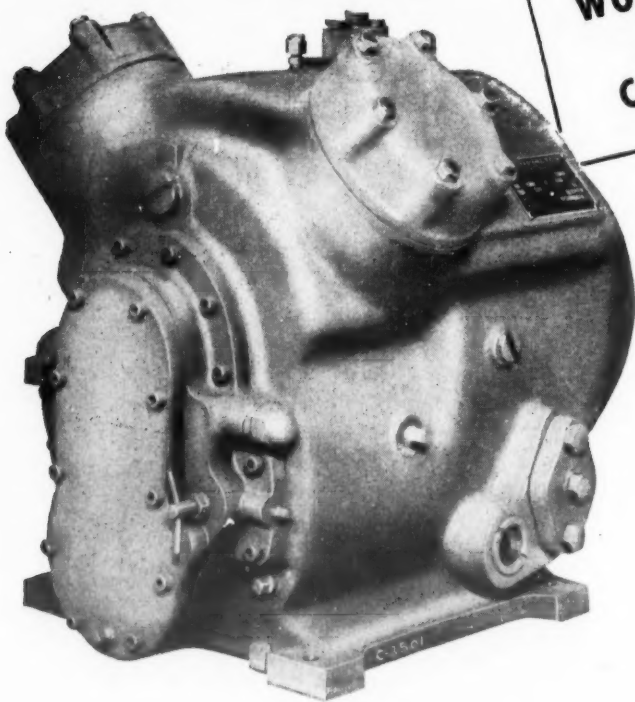
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They'll Do It Every Time By Jimmy Hatlo

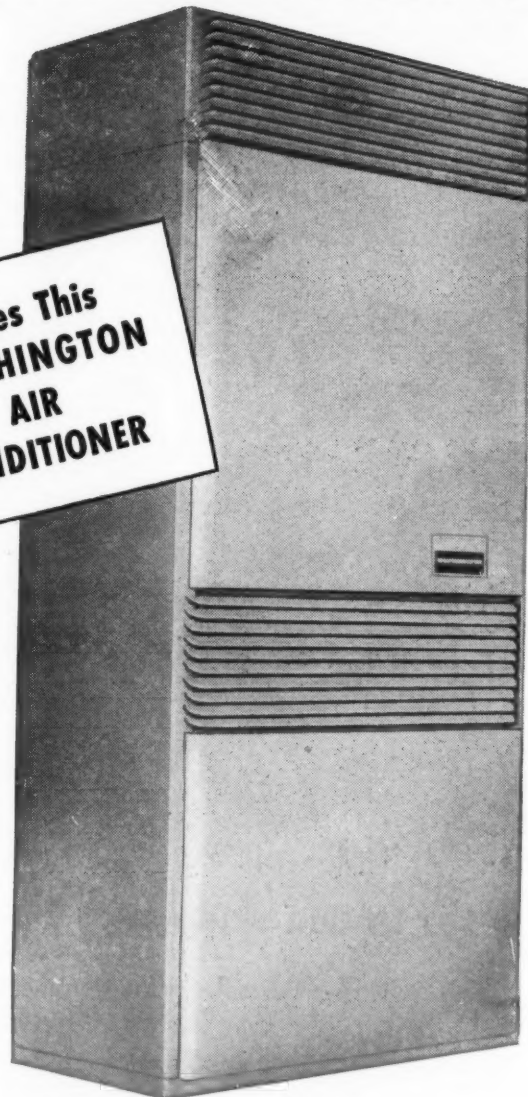


Do You Have 'One Foot In the Door'?

This **NEW** Hermetically-Sealed COMPRESSOR



Makes This
WORTHINGTON
AIR
CONDITIONER



the Outstanding SELF-CONTAINED Unit

It's the most modern of its kind—completely new, designed throughout for quiet, vibrationless operation and field serviceability.

Motor and compressor are combined in one piece of equipment (eliminating belts, pulleys, fly wheels and couplings) and hermetically sealed against dirt and moisture. There are no shaft seals, and it is never necessary to oil the motor or make adjustments. When necessary, the equipment is readily accessible for servicing in the field.

Other features: dynamically balanced crankshaft, crankcase with removable cover, positive

displacement gear-type oil pump, large oil filters in the lubricating oil line, pistons equipped with four piston rings, removable cylinder liners, Worthington Feather* Valves, refrigerant-cooled cylinder walls and refrigerant-cooled motor.

Models are available now in 3-ton and 5-ton sizes.

Get ahead with Worthington's Self-Contained Air Conditioner—the air conditioner with all the new features, that's going out front in 1948. Worthington Pump and Machinery Corporation, Harrison, N. J. Specialists in air conditioning and refrigeration for more than 50 years.

*Reg. U. S. Pat. Off.

WORTHINGTON



AIR CONDITIONING AND REFRIGERATION

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Disciplined Doctors

THERE'S a lot of talk nowadays about socialized medicine and science. You hear it argued that Government should pay for (and control, of course) all scientific endeavor (including doctoring and surgery) and all research. On the other hand, Government in Science and Medicine would wreck more experimental projects, and stymie more humane ameliorations of mass suffering, than it could possibly do good.

The men who discover things, and the medical practitioners who conquer plagues—those unreconstructed imagineers who stray off the beaten track—seldom are found in government bureaus. Creative thinkers hate regimentation and defy discipline. They detest routine, and they enjoy being out-of-step with the hup-two-three-four marchers of their generation.

Researchers and practitioners of this stripe are anathema to Government planners. If one or two out of a hundred of these eccentrics shatters a hallowed shibboleth, or shows up at the hospital one sunny morning with a bright new idea, they disturb and disrupt the denizens of a comfortable planned bureaucracy. In all innocence, they unwittingly discredit the supposedly sacrosanct Wisdom of the socialist theorists. (And that will never do. It cannot be countenanced.)

Government planners try to rectify these *lese majestie* interruptions of their comfortable boredom by choosing their own scientists and inventors, and by subsidizing their investigations—after screening these "chosen few" carefully as to their loyalty to the "party line." But that carefulness doesn't always work out right, either. The Government Gods—being human—can't possibly predict the direction of scientific advancement. They're just as surprised as you and I are when a General Electric scientist precipitates rain by dropping "dry-ice" pellets on a cloud from an airplane.

No bureaucrat or no Dictator is wise enough, well-informed enough, and prescient enough to select the Edisons, Pupins, Marconis, and Ketterings from amongst the annual crop of university graduates. Even if an all-wise Dictator could separate the scientific geniuses from the college graduate goats, the former would be stymied before they ever had a chance to get going by governmental red-tape—which frustrates the independent thinker, and saps energy away from the ambitious—in a Planned Economy.

No government hanger-on can order a scientist to discover a new principle—because no bureaucrat can imagine the scope or direction of an unknown principle. He can't command inspirations, nor can he regiment creation. Progress is unpredictable and unplannable, because it can't be organized. It turns up unexpectedly, it pops up in the darndest places, and it seldom can be anticipated. Organization smothers and thwarts invention and inspiration.

What's more, the Spirit of Competition—as opposed to the dead hand of Organization—encourages invention, stimulates Free Thinkers, and jets forward the discovery of New Horizons.

Free men delight in rivalry. They want to "get ahead." So, when they get an idea, they work nights, Saturdays, and Sundays to develop it.

Many of these inventors never get rich. But, through their extra-efforts, they contribute to the sum total of human Knowledge. Some of them get what the little boy shot at when he was given his first B-B gun. Nevertheless, these not-quite-geniuses, these never-give-up tryers, are inordinately useful to an advancing civilization. And they should be given an incentive to continue their labors and keep on hoping that their dreams will come true.

Any man who works or thinks overtime should be rewarded commensurately. He has *within him* the primordial stuff which (when concentrated) elevates mass well-being, and makes the Pursuit of Happiness easier for his lackadaisical brethren. This creative fellow can't be forced or coerced to work harder or think longer by any political Boss. Nor is he interested in dividing existing wealth (robbing something from somebody else).

His free scientific investigations *could* result in higher wages, lower prices, and more satisfactory profits for all. And often they do. He is the embodiment of the American Spirit. He's the re-creation of the old-time Family Doctor, and he's the re-incarnation of the cult of Usefulness. God bless him!

U. S. Rubber Co.'s Electrical Heating Panels Now Being Tested In Homes

RARITAN, N. J.—Millions of American homes of the future will be heated more efficiently and economically with electricity, in the opinion of C. W. Higbee of United States Rubber Co., producer of a new radiant heating panel which generates heat in the ceiling.

Higbee, manager of the rubber company's wire and cable department, made his statement to a press group visiting an electrically-heated house in Raritan, N. J., one of a dozen houses in the country already equipped with the panels.

The panels, called Uskon, are heated by a conductive rubber resistance element. They were developed in the Passaic, N. J. plant of U. S. Rubber Co. under the direction of R. D. Gartrell, research and development manager.

Rubber is normally an excellent insulator against electricity. In Uskon, however, scientists reverse the chemical nature of the rubber to make it conduct electrical current.

Higbee said that the new system is the "most practical, efficient, and esthetic" ever developed. It can be used wherever electricity is plentiful. Present estimates by U. S. Rubber engineers indicate that it can be operated as economically as other heating systems in well-insulated houses where electricity can be obtained for one and one-half cents per kilowatt hour or less.

To illustrate the economics of Uskon heating the engineers selected a typical house, consisting of a large living room, kitchen, two bedrooms, and hall, and estimated the cost of heating for a year in 12 different cities. The house contains 8,000 cu. ft. of space and it is well insulated to reduce heat loss to a minimum.

The estimates are based on minimum power rates reported for the 12 cities. They do not take into consideration any special rates for heating that may be granted in various localities. They allow for continuous and uniform operation 24 hours a day at 68° and do not make provision for savings that may be realized by operation of the system at lower temperatures in some parts of the house. The chief determining factors in the study are the power rate and

climate.

The estimates for a full year of operation are as follows:

Pittsburgh, \$190; Buffalo, \$247.50; New York City, \$252; Jacksonville, \$39.30; Atlanta, \$66.93; Memphis, \$47; Denver, \$291.60; Seattle, \$220; San Francisco, \$43; Bangor, Me., \$170.20; San Diego, \$61; Chicago, \$310.

Ten houses have been erected in the seven-state area of the Tennessee Valley, where electricity is plentiful and comparatively low in cost due to the availability of water power for generation of electricity. Similar power rates exist in the Pacific Northwest and other scattered sections of the country having hydro-electric power.

There are also many localities where electricity generated by coal is available at rates ranging from a fraction of a cent to one and one-half cents.

The house in Raritan is on the grounds of the John B. Pierce Foundation, a non-profit research organization engaged in the study of improved materials and design standards for the American home. This house is occupied by Mr. and Mrs. Burt Johns, employees of the Pierce Foundation. It is equipped with special heat control and recording devices which enable engineers to study the behavior of the new system.

The Johns family reports that the house has been comfortable every day since they moved in last November, even when the temperature dropped to near zero.

In New York City, U. S. Rubber has put the Uskon system in a Cape Cod house temporarily located at Fifth Ave. and 48th St. This house is sponsored by a charitable organization in connection with a fund-raising campaign. The minimum electrical rate for home heating in New York City is two cents a kilowatt, too high for regular heating.

The standard size of the heating panels is 4 x 4 ft. Other sizes are made to order when needed. The panels are about 1/4 in. thick, resembling standard interior building boards. They may be nailed to the joists in the ceiling or may be installed over an existing ceiling.

There are no wires in the heated area of the panel. Wires bring current to the edge of the conductive rubber. The heating element is sandwiched between several layers of phenolic insulation and the laminated construction is made rigid by a backing of 3/16 in. asbestos board. Aluminum foil on the upper side serves as a reflector to prevent heat from going through the roof.

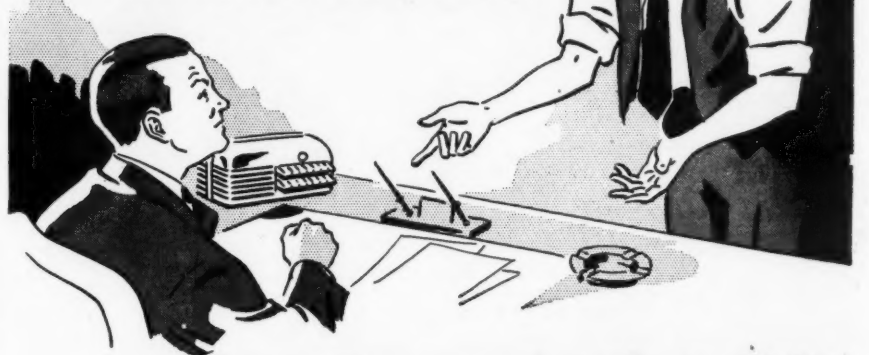
The panels operate on 220 volts. They are made in two standard wattage densities, 17 watts per sq. ft. and 22 watts per sq. ft. The 17-watt panels are used in rooms with normal heating requirements. The 22-watt panels are used in bathrooms, over large window areas, and in rooms with abnormally high heat losses.

Panels usually cover about 70% of the ceiling. To provide the optimum results they are arranged in a peripheral pattern, with a non-heating section in the center of the room which is filled in with standard building board. The peripheral pattern produces a slight air circulation which prevents "stuffiness" and disperses tobacco smoke and kitchen odors.

Temperature in each room of an Uskon-heated house is individually controlled by thermostat. The surface temperature of the ceiling averages about 100° F. This affords a flexible system in which certain rooms may be reduced in temperature while others remain at a higher level.

The heat may be turned on and off by the flick of a switch. The ceiling heats up to maximum temperature in about 15 minutes. Room space is comfortable at 68° F. because the radiant heat "shines" directly on occupants, eliminating the necessity of warming the air, it is claimed.

"Why wait till summer to get a water cooler—
**WE DRINK WATER
IN THE WINTER, TOO!**"



There's Year-around Profit in OASIS

Cool water is a prime need *all year long*. So why not reap the full, *year-around* profits OASIS Electric Water Coolers offer you? . . . by pointing out to prospects that "people drink water in winter, too!" It's *easier* when you offer all the advantages of OASIS Electric Water Coolers—their smooth-working, spurt-proof dial-action EBCO Bubblers, smart stainless steel tops, quiet-running efficiency, sleek cabinet beauty. Write for details.



A Model for Every Need

The EBCO Manufacturing Co.

401 W. Town St., Columbus 8, Ohio

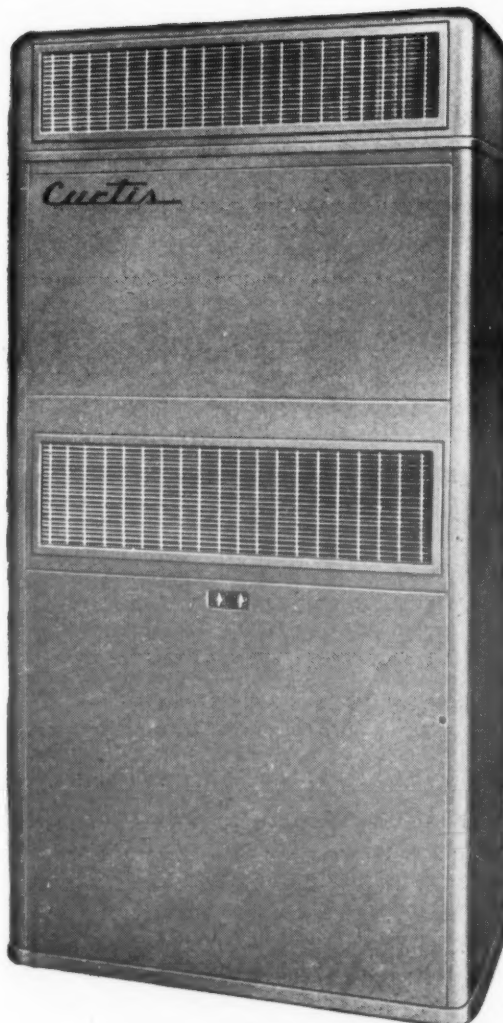
World's Largest Manufacturer of Electric Drinking Water Coolers

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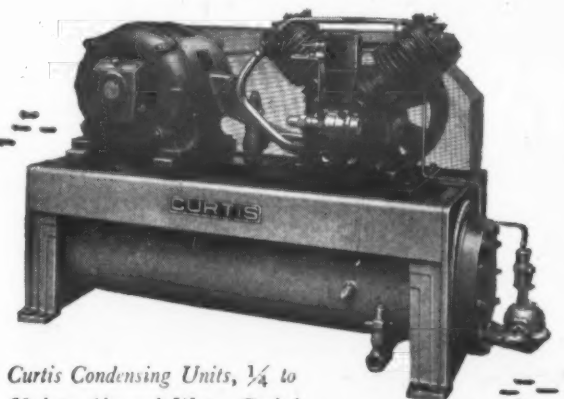


Curtis Packaged Air Conditioner,
Capacities 3, 5, 7½, 10 and 15 tons

For commercial refrigeration or air conditioning applications the complete Curtis line offers more to your customers—in satisfactory, trouble-free performance, sound, proven design and engineering and lower operating and maintenance costs. Curtis advantages include:

- Timken Bearings
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You'll sell more, make more profits when you sell Curtis. Write for full information today.



Curtis Condensing Units, ¼ to
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THE **Everfrost**
IMPERIAL
FOUNTAINETTE

featuring
THE EVERFROST
REFRIGERATED CARBONATOR
AND WATER COOLER

completely self-contained

"Everfrost" scores again! Here is an unusual development in soda fountain manufacturing. A complete soda fountain, entirely self-contained. Capacity 20 gallons of ice cream, complete with refrigerated carbonator and water cooler, and a ½ H.P. hermetically sealed compressor. This is another reason why the "Everfrost" line is so popular . . . another reason why aggressive fountain dealers are signing "Everfrost" sales franchises now. Selected territories are now open. Write or wire for complete information today.

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PLAYSAFE

USE
CHICAGO SEALS
and
VALVE PLATES



Denver Firm Planning Quarters 'Designed for Appliance Distribution'

DENVER—Construction of a new \$350,000 appliance distribution center, believed to be the first designed specifically for the purpose, was announced here by L. F. Skutt, president, Western Appliance Corp., Kelvinator distributor.

"In traveling the United States for the past 30 years, I have never seen a building laid out especially for the large-scale handling of major appliances," Skutt said. "Nearly all of them have been made over for the purpose, and have inherent shortcomings difficult to overcome. By designing from the ground up, I believe we will have facilities of maximum efficiency."

Features of the new building include separate display rooms for each type of appliance; an auditorium seating 100, with ample product and stage provisions; a complete operating kitchen for demonstration purposes; radiant heating and air conditioned offices. All loading and receiving will be inside the building, including truck ramps and docks, and a railroad spur which enters the plant at the center rear.

Full provision has been made for modern service shops and parts and commercial product display and storage.

'Savings Chart' on Frozen Food Purchases In Quantity Boosts Home Freezer Sales

Florida Distributor's Research Studies on Food Prices Pays Off

MIAMI, Fla.—Exceptional sales increases in home freezer merchandising have been rung up by half a dozen appliance dealers in this area, as the result of a unique "savings chart" which has been developed by Major Appliances, Inc., Amana distributor here.

Major Appliances, Inc., believes that it is wiser to present home freezers on a dollars-and-cents saved basis, rather than as "an adjunct to pleasant electrical living."

Therefore, representatives of the company made a study with prominent frozen foods manufacturers and distributors and worked out a series of charts which show the per pound savings which can be achieved through buying in large quantities for storage in the home freezer. These are worked out in the form of "comparison charts" which show the savings in purchases of frozen foods between small and large packages.

FORM OF THE CHART

The most helpful chart lists in six columns the food item, the size of the small package and its price, size of large package and its price, and the savings expressed in percentages. In the "items" columns are such foods as asparagus, applesauce, cauliflower, chicken-ala-king, lima beans, mixed vegetables, rhubarb, etc.

For a typical example, cauliflower in a 10-ounce package costs the consumer 32 cents, but buying in 2 pound packages, 10 ounces cost only 25 cents. This is a saving of 21%. Peas, in 12-ounce packages, are priced at 33 cents, but in 2½ pound packages come to only 24 cents.

DEALER EDUCATION

The distributing firm worked out similar charts to demonstrate savings on ice cream, on frozen poultry, and frozen fish. Dealers were called in to a special meeting, and the advantages of the chart carefully explained. At the meeting, dealers were educated to utilize the savings chart as a means of converting the "high-price argument" on the part of prospects into a real asset.

Almost every dealer who has utilized the plan has reported that when housewives complain about the current high cost of living as a reason for not purchasing a home freezer, salesmen quickly grasp the opportunity to show that a real saving may be accomplished.

BIG FAMILY PROSPECTS

With the various savings charts, the best home freezer prospect is the mother of several children who must budget to feed the entire family, according to typical dealers. There

Comparison Chart of Savings In Purchases of Frozen Food Between Small and Large Packages—Savings Average 30%

Items	Size of Small Package	Price	Size of Large Package	Price	Savings
Applesauce	16 oz.	33¢	4 lbs.	16 oz.—26¢	26%
Asparagus Cuts & Tips	12 oz.	47¢	2½ lbs.	12 oz.—18¢	61%
Asparagus Spears	12 oz.	56¢	2½ lbs.	12 oz.—42¢	25%
Broccoli	12 oz.	40¢	2 lbs.	12 oz.—25¢	37%
Brussel Sprouts	13 oz.	53¢	2 lbs.	13 oz.—35¢	34%
Cauliflower	10 oz.	32¢	2 lbs.	10 oz.—25¢	21%
Chicken ala King	11 oz.	76¢	4 lbs.	11 oz.—61¢	20%
Chop Suey Vegetables	16 oz.	43¢	10 lbs.	16 oz.—39¢	10%
Corn, Cut	10 oz.	25¢	2½ lbs.	10 oz.—18¢	28%
Green Beans, Cut	10 oz.	29¢	2½ lbs.	10 oz.—19¢	34%
Green Beans, French	10 oz.	30¢	2½ lbs.	10 oz.—19¢	34%
Lima Beans—Fordhook	12 oz.	46¢	2½ lbs.	12 oz.—35¢	24%
Mixed Vegetables	12 oz.	30¢	2½ lbs.	12 oz.—20¢	33%
Peas and Carrots	12 oz.	31¢	2½ lbs.	12 oz.—20¢	34%
Peas, Fancy	12 oz.	33¢	2½ lbs.	12 oz.—24¢	30%
Rhubarb	14 oz.	27¢	2 lbs.	14 oz.—19¢	29%
Wax Beans, Cut	10 oz.	29¢	4 lbs.	10 oz.—16¢	40%

Savings on Ice Cream

Sealtest Ice Cream	quart	70¢	2½ gal.	quart—60¢	14%
Howard Johnson	quart	\$1.00	2½ gal.	quart—50¢	50%

Comparison In Price Between Frozen and Fresh Killed Poultry

	Frozen	Fresh Killed
Fryers, cut up	Pound 73¢	Pound 95¢
Fryers, whole	Pound 70¢	Pound 75¢
Roasters	Pound 70¢	Pound 75¢
Turkeys	Pound 69¢	Pound—Toms 70¢ Pound—Hens 75¢

Comparison In Prices Between Frozen and Fresh Fish

	Frozen	Fresh
Bluefish fillet	Pound 32¢	Pound 42¢
Cod fillet	Pound 30¢	Pound 38¢
Perch	Pound 31¢	Pound 38¢
Rockfish fillet	Pound 40¢	Pound 45¢

have been many examples in which such housewives have been shown how the over-all savings will not only pay for the home freezer, but a 10% savings on food costs every month of the appliance's life.

In addition to working up these charts, Major Appliances, Inc., has contacted local meat packers in the Miami area, and worked out an arrangement whereby one leading packer guarantees to supply large-poundage cuts of meat at a stable price, which permits home freezer dealers to work out the same type of savings chart for themselves on meats. This was a co-operative plan, whereby the meat packer has guar-

anteed himself much appreciation and sales volume from home freezer owners, appliance dealers may quote savings with absolute veracity, and the purchaser himself enjoys the benefit of much reduced meat cost.

A dozen appliance dealers, who had let home freezers sit on their showroom floors with an apathetic interest on the part of customers found sales materializing over night. Moreover, even though prospects who are shown the charts may not buy at the moment, they are implanted with a realization of the practicality of such appliances which will go a long way toward keeping up the present high turn-over rate.



MODEL 4D
MODEL 5D

Model 4D above is a 4 cu. ft. table top kitchen freezer and Model 5D is a 5 cu. ft. apartment table top refrigerator. While the beautiful design of these models lends itself to any surroundings, they are particularly adapted to use in modern kitchen planning. Overall height is 35" permitting a 1" linoleum top to extend over the refrigerator or freezer for additional work space. Or they may be used "as is" in kitchens, apartments,

rumpus rooms, under bars, etc. Fan cooled condenser requires no rear ventilation. Model 4D is also excellent as an ice cube maker.

Model 13.5D is the popular 13½ cu. ft. 4 compartment upright freezer, exclusive in design. This model is especially efficient and trouble free in operation.

Special refrigerators are manufactured on large contracts.

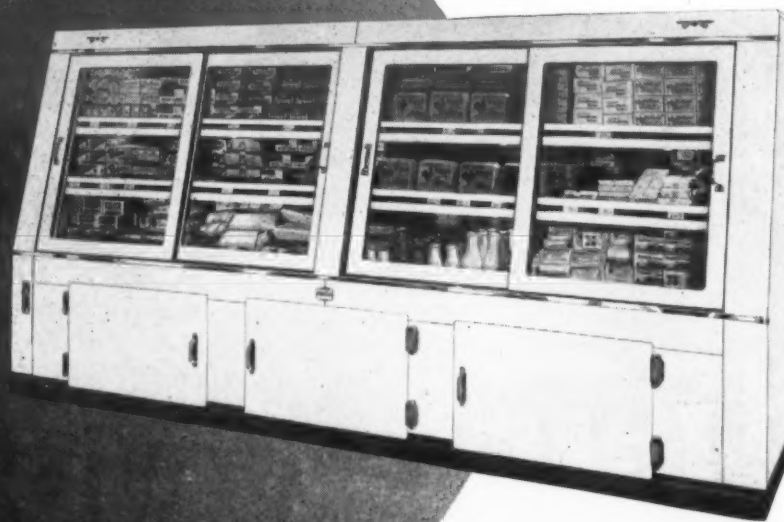
All models use nationally accepted Hermetic units—Five year guarantee—Only recognized dealers and distributors—Inquiries welcomed.

Continuous refrigerator production since 1939

STODDARD MANUFACTURING COMPANY,
Mason City, Iowa

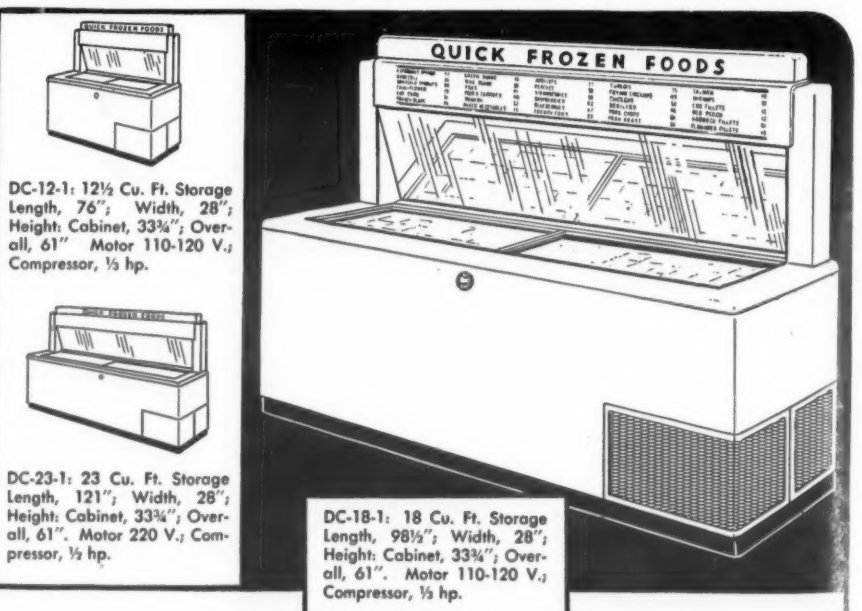
CROWD-STOPPER

Sherer's self-serve dairy case is a "natural" for drawing the shopping crowds. Its large, easy-to-get-at display area sells more milk, butter, cheese, spreads... boosts sales and profits for food merchants.



REFRIGERATED MERCHANDISERS

SHERER-GILLETT CO.
Marshall, Michigan



DC-12-1: 12½ Cu. Ft. Storage Length, 76"; Width, 28"; Height, Cabinet, 33½"; Overall, 61". Motor 110-120 V.; Compressor, ½ hp.

DC-23-1: 23 Cu. Ft. Storage Length, 121"; Width, 28"; Height, Cabinet, 33½"; Overall, 61". Motor 220 V.; Compressor, ½ hp.

DC-18-1: 18 Cu. Ft. Storage Length, 98½"; Width, 28"; Height, Cabinet, 33½"; Overall, 61". Motor 110-120 V.; Compressor, ½ hp.

BTC Frozen Food DISPLAY CASES

- Heavy 16-gauge Bonderized Steel Cabinet and Superstructure
- High Bake White Enamel Finish
- Stainless Steel Top Capping and Channels
- Fingertip Sliding Double Glass Lids
- Full capacity Motor and Compressor for trouble-free, long-lasting service
- Vapor-sealed Insulation
- Modern Design built for open display and easy access.

Go after greater sales and profits with BTC Frozen Food Display Cases — complete line, 12½, 18, and 23 cubic foot storage. A limited number of dealer and distributor franchises are available. Write for full information.

THE BREWER - TITCHENER CORPORATION
CRANDALL STONE DIVISION --- BINGHAMTON, N. Y.

New Products In Air Conditioning Are Introduced at Heating Show



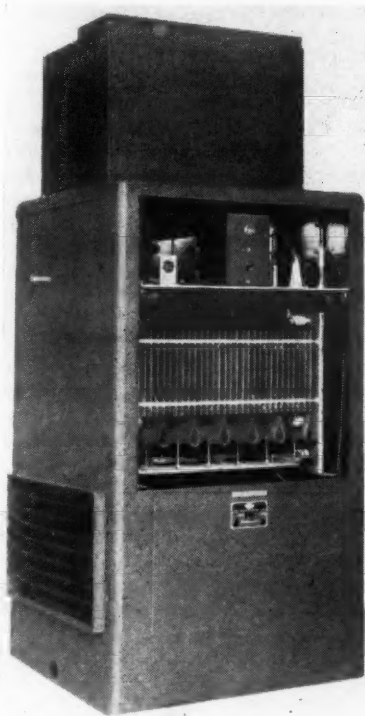
Featured product at the Carrier booth in the New York show was this "executive" model 3/4-hp. window-type room air conditioner which is here being examined by William H. Browning, II, sales engineer with Thermodyne Corp., Carrier distributor in New York City. Powered by a hermetic compressor, the unit will also provide year-round ventilation, and is supplied in a walnut finish cabinet.



Mrs. Paul Dutch, wife of the chief engineer for Iowa Sheet Metal Contractors of Des Moines, Iowa, examines with interest a new 3-hp. self-contained air conditioning unit which General Electric Co. displayed at the New York Show. This unit is G-E's model FD-30D, a water-cooled job. The company is also producing this conditioner in a 5-hp. water-cooled model, designated as FD-50D.



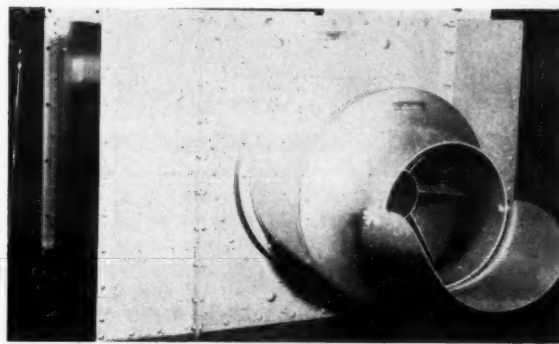
Wayne Clemens, export manager for Remington Corp., points out some features of the Remington Model 10 deluxe all-year air conditioner to Nelson L. Gould (right), vice president of the Seidel Co., St. Louis outlet. Until recently Remington has been concentrating on the export market with this unit, but is now moving into the U. S. picture.



Raytheon Mfg. Co. showed for the first time its new self-contained packaged precipitator with built-in blower. This electronic air cleaner is particularly adaptable for commercial establishments and is available in two sizes—1,200 and 1,800 c.f.m.



Poised atop Rheem Mfg. Co.'s remodeled evaporative cooler model No. 2004 is June Ageson of Brooklyn. This unit, one of three in the line, is rated at 3,500 c.f.m. The two other models are of 2,500 and 5,000 c.f.m. capacity. Also introduced by Rheem was a line of water softeners employing the zeolite filtering process.



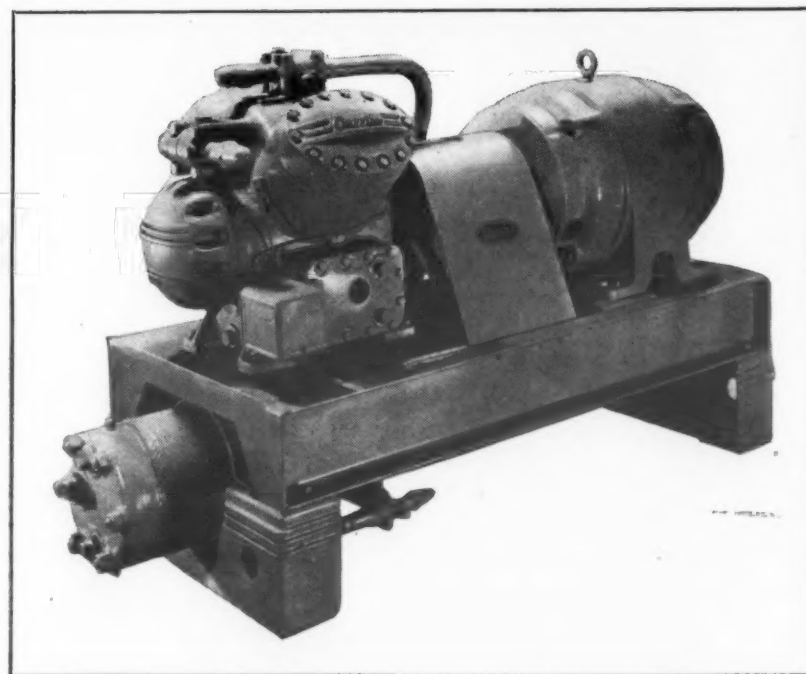
Introduced by the W. B. Connor Engineering Corp. was this activated carbon blower unit specifically designed for apple storage installations. Used in conjunction with refrigeration, the unit is claimed to lengthen apple storage life for an additional month to six weeks.

Carrier makes refrigeration history

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- 1 You get exactly the right **COMPRESSOR** to fit your needs—5 to 100 hp.
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SITUATION WELL IN HAND
with Tuthill Lubrication Pumps on the Job

For pressure lubrication service, you can depend on Tuthill Model L pumps. They are internal-gear rotary type, mechanically sealed for quiet, leakfree, low-cost operation. Capacities up to 3 g.p.m. in wide pressure ranges. Other models include stripped pumps and automatic reversing pumps to meet your pressure lubrication requirements. Write for details.

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Pumps*

TUTHILL PUMP COMPANY
939 East 95th Street • Chicago 19, Illinois

Carrier

AIR CONDITIONING • REFRIGERATION • INDUSTRIAL HEATING

RSES Honors Past President Buschkopf and....



W. W. Allison (left), retiring RSES president, pins the past president's emblem on the lapel of Clarence Buschkopf, president prior to Allison.

Elects New Officers and Directors



Pictures by Austin Jones, Kerotest Mfg. Co.

New officers elected at the RSES convention are seated (above) with nine of the new directors standing behind them. Officers are (from left to right) Paul Reed, educational committee chairman; Al Robertson, second vice president; Charles Harris, first vice president; William Marshall, president; H. T. McDermott, secretary; Walter E. Booth, sergeant-at-arms. Directors are (from left to right): William Tierney, C. E. Nisel, J. L. Driscoll, Napoleon Brossoit, Floyd Lilley, C. S. Tucker, Earl Yockey, Cecil Visger, and J. V. Berger.

Maintaining Proper Temperature, Humidity In Meat Cases Means Dollars to Butcher

CLEVELAND—The importance of maintaining proper temperatures and humidity in refrigerating fresh meats at the retail level was stressed by John Spence, service manager of Hussmann Refrigeration, Inc., in a talk before the Refrigeration Service Engineers Society during the Society's annual convention here recently.

Spence discussed in detail how this can be done in both the closed type display case and the open-type, self service case, which is becoming more and more popular especially in super markets.

Temperature and humidity in meat merchandising cases are extremely important to the butcher because they can mean several hundred dollars a year to him in spoilage and shrinkage losses alone, Spence said.

The proper temperature to use in closed display cases varies according to the user from 28 to 42° F., he declared. The best answer is the highest temperature at which the least loss to spoilage is experienced, he explained.

This can be 34° F. or 44° F., depending on the quality of the product, the rapidity of turnover, and the length of time it spends in the case. As all meats being displayed in a case at one time do not react in the same way to any one temperature, the butcher must compromise.

Spence recommended temperatures of 34 to 38° F. for fresh beef, lamb, or veal, 30 to 35° F. for chickens,

34 to 42° F. for mutton, and 40° F. for dried or salted beef.

If the meat case does not have sufficient humidity, the meat will dry out and change its flavor, he noted. He added that relative humidity should range between 80 and 90% at 35 to 40° F.

Taking up seven different refrigeration requirements necessary to proper humidity control, he pointed out that the refrigeration work in a display case is actually done by the coil.

Little Moisture Removed

He explained that the proper sized coil can be operated with a higher refrigerant temperature with very little removal of moisture from the air, much of which will be reabsorbed by the air during the defrost period.

Too small a coil, he noted, will result in a low coil temperature and therefore low humidity. Running time and operating cost will be increased.

Because operating cost decreases as coil temperature increases, Spence recommended that the difference between coil and fresh meat display temperature be approximately 15° F. for gravity-type coils and 10° F. for blower coils.

Having the condensing unit and the coils in balance was a second consideration, Spence said. He defined this balance as having the coils evaporate the liquid refrigerant into a gas and having the gas drawn away at the proper rate to maintain correct coil pressure.

Too large a condensing unit will cause high humidity and sliming of meats while, conversely, too small a unit will result in low humidity and drying, he stated.

Liquid and suction lines must be the proper size to eliminate pressure drops of more than 1 to 1½ lbs., he declared. Though he recommended following manufacturer's instructions in determining proper sizes, he said that in "Freon-12" installations, where the liquid and suction lines are longer than 50 or 60 ft., as occurs in larger super-markets, the coils should be boosted

up one size from that normally used.

Also strongly recommending that the serviceman follow manufacturer's instructions in setting pressure control switches, he declared that normally, with gravity type coils, the setting should be approximately 23 lbs. for methyl chloride and 35 lbs. for "Freon-12." A slightly higher setting was advised for blower type coils.

Expansion valves, too, have to be in balance with the capacity of the condensing unit, according to Spence, who pointed out that many times servicemen fail to open the expansion valve enough to gain full use of the coil.

"If it is necessary to open the expansion valve to gain full use of the coils and the suction line frosts out of the fixture, install a heat exchanger," he advised.

Warm or frozen merchandise packed against the thermal bulb of the expansion valve can also affect the operation of the entire system, he said.

Retarded air circulation can have an adverse effect on fresh meats, he noted. Servicemen should watch out for signs of poor circulation when called in because of high temperatures or low humidity.

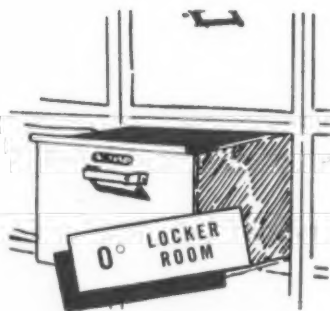
Overcharge Ups Pressure

An overcharge of refrigerant, Spence declared, will cause higher condensing pressures that decrease the capacity of the condensing unit and increase operating costs. A slight shortage of refrigerant will cause the unit to operate for longer periods of time, which in turn will cause the coil to ice over.

A severe shortage will cause short cycling. If, through a gas leak, the temperature of the refrigerant is reduced far enough to allow free moisture in the system, a stuck expansion valve will result.

Two other factors, which can affect the discoloring of meats and which, though they have nothing to do with the refrigeration equipment, will mislead the butcher into thinking that the refrigeration equipment is at

(Concluded on next page)



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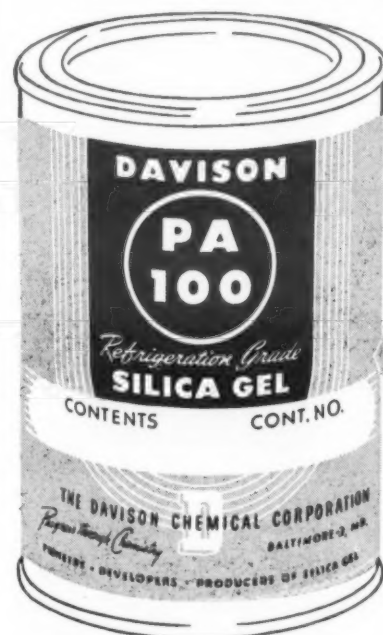
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Importance of Clean, Fully-Fed Coils On Open Cases Cited By Spence

(Concluded from preceding page)

fault, are fluorescent lights and unventilated gas heaters, Spence indicated.

A poor contact between a fluorescent light tube and the lamp hangers will produce arcing. Arcing will cause ozone to form in the air. And ozone will combine with the oxygen in the fresh meat cells to bring about blackening of the meat.

The combustion of gas in a gas-fired store heater (commonly used for heating in the Southwest) will form carbon monoxide which also has an affinity for the oxygen in the fresh meat cells and induces blackening of the meat. A good test for this trouble is to place a freshly cut piece of meat in the open. If it turns black within a few hours, the heater is probably at fault. Ventilation of the heater will remedy this condition, Spence said.

Self service, open type meat cases for the display of packaged meats are rapidly becoming popular with both merchants and housewives, Spence declared.

He noted that there are now about 500 stores operating 100% self service or semi-self service, including meats.

Self-Serve System Varies

Though the refrigeration principles and system are practically the same as in closed type cases, there are some exceptions. These exceptions are:

A larger condensing unit is required. Manufacturer's instructions for condensing unit size under given conditions should be followed to the letter, Spence stressed.

The condensing unit is required to run with "on cycles" of one hour or longer, depending on the ambient temperature, to maintain required case temperatures.

The case must not be exposed to drafts or fans.

Coils designed to operate on a defrost cycle principle must be completely defrosted at the end of each running cycle.

Merchandise should not be displayed so as to block the warm air flue or cover the shelf surfaces completely.

Because meats are prepackaged, humidity is not as important a factor as in closed cases.

Spence discussed what he called the three cardinal principles of controlling open-type refrigerators, all of which must be followed in order to get satisfactory service.

These principles are:

Feed the coil fully.

Keep the coil clean.

Keep feeding the coil.

He explained that when the coil is fully fed, both the liquid and suction lines will be equally and sharply frosted. If the suction line is found to be frosted 10 or 15 ft. out of the cabinet, the superheat setting on the expansion valve is too great and

a hunting action is taking place.

Warning servicemen not to be misled by signs that would normally indicate that the expansion valve is open too much, he pointed out that because of this hunting action, the coils are being flooded and then pumped dry. The valve will cut out at the low-pressure point and, because of the high superheat setting, will not feed any refrigerant into the coil during the off cycle and will not allow the pressure to build up to the cut-in point.

When there is objection to sweating outside the cabinet, a heat exchanger should be installed inside the case. He advised that a heat exchanger be installed on all cases operated below 40° F. in order to get best results.

There are two different ways of keeping the coil clean, Spence said, depending on the temperature desired in the case.

For case temperatures of 38° F. or above, a standard low-pressure control, with its cut-in set at 38 lbs. for "Freon" and 30 lbs. for methyl chloride, may be used. In this connection, he advised servicemen to adjust expansion valves rather than change the cut-in setting when pressure does not build up to the specified points rapidly.

For case temperatures below 38° F. he recommended a time clock operation because it is obviously impossible to melt frost on a coil and maintain freezing temperatures.

The time clock should be set for a three-hour defrost. The cut-in point of the pressure control must be set below the freezing point so that no partial defrosting will occur during the off cycle.

The three-hour defrost period has worked out satisfactorily, Spence declared, and allows the meat temperature to rise, normally, only about 2° F.

How To Get Right Setting

Keeping the coil fed is a matter of cut-out adjustment and this determines the temperature of the refrigerator, Spence said. Because it is impossible to give a specific cut-out adjustment for a particular temperature, he outlined the following procedure as one way of getting a satisfactory setting:

"Allow the machine to run between one and two hours, depending on how cold the user wishes his refrigerator. Watching the gauges, set the cut-out to trip the switch at the low-pressure point of the normal hunt after the machine has been running this length of time.

"At some later date, it is a simple matter to lower the cut-out one or two pounds if the customer wishes colder temperatures, or raise it a pound or two if he wishes warmer temperatures.

"It is always best to have the temperatures too cold on the original adjustment rather than too warm."

Fedders-Quigan Names Conditioner Service Mgr.

BUFFALO — E. A. Bonneville, sales manager of the Unit Air Conditioner Division of Fedders-Quigan Corp. here, has announced appointment of Gordon M. DeJarlais as service manager of the division.



G. M. DeJarlais

new Fedders ½ and ¾-ton room air conditioning units.

Lundbeck To Handle Allen-Bradley Line

ST. PAUL—R. A. Lundbeck Co., St. Paul, has been formed to take over the representation of the Allen-Bradley line of motor controls formerly handled by Savage-Girton Co. of the same city.

The trading area covered includes Minnesota, North Dakota, South Dakota, and the western counties of Wisconsin.

Mr. Lundbeck, an electrical engineering graduate of the University of Minnesota, is assisted by Robert T. Johnsen.

Savage-Girton gave up the Allen-Bradley franchise when Jack Girton retired, due to ill health.

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FULLY AUTOMATIC — UNIVERSAL
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5-INCH BLADE
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Good
hardware —
designed and
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and useful
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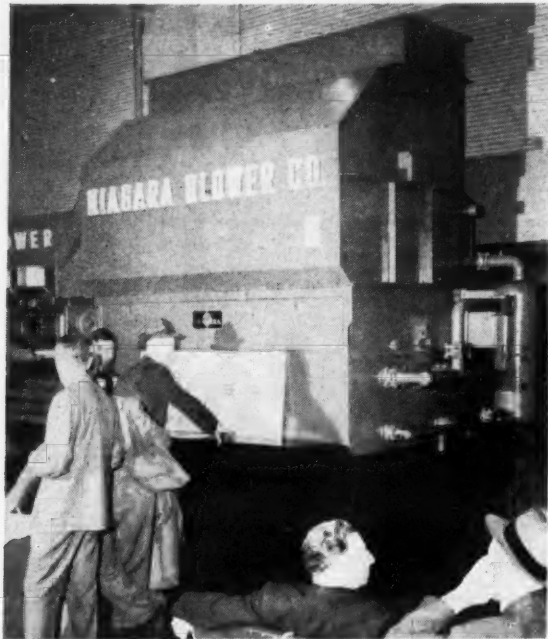
Write for catalog showing the complete Arcade line.

ARCADE

MANUFACTURING DIVISION
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FREEPORT, ILLINOIS



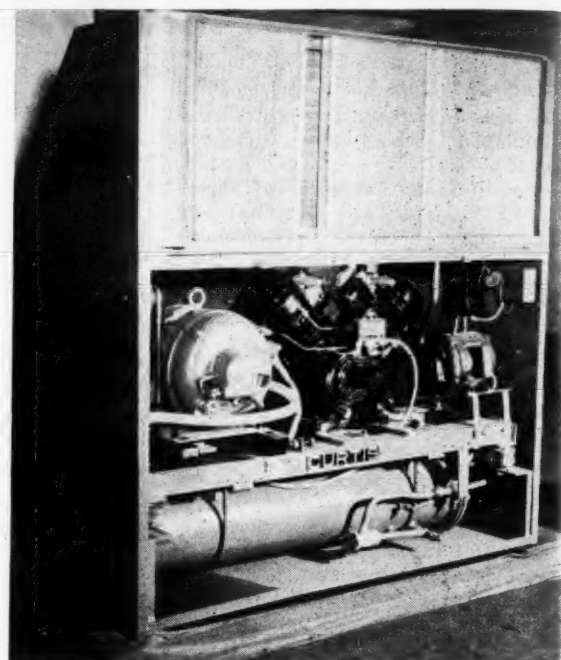
Camera Report on Products, People at N. Y. Show



D. J. Crawley, of Niagara Blower Co.'s Chicago office, and J. W. Olstad, Niagara engineer, looked at photograph as he took picture of Niagara's new aero-pass condenser, handling about 60 tons of refrigeration.

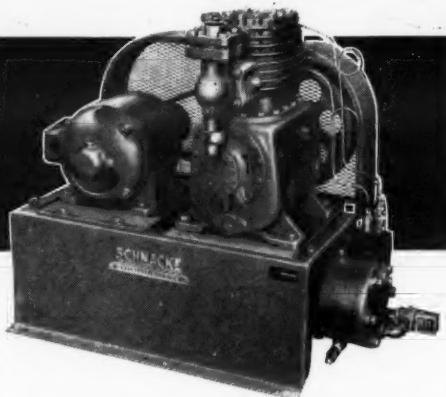


Taking a close look at York Corp.'s 300-ton turbo compressor was Andrew Truhan (front left), engineer for Blocker Corp., Newark, N. J., York distributor. Behind him (at left) is J. Donald Smith, York advertising manager, who pointed out that blades, hubs, and cover discs of impellers of turbo compressors are now made entirely of stainless steel.



Curtis Refrigerating Machine Division removed a panel from its 10-ton central type air conditioner (Model FWH-1000-CTAC) to show booth visitors what makes it tick.

SCHNACKE Complete CONDENSING UNITS



SCHNACKE units have replaceable refrigerant-cooled steel cylinder sleeves, complete pressure lubrication, balanced forged crankshafts, individual cylinder liquid relief, individual cylinder valve cage assemblies, built-in suction strainers, sealed crankcase, balanced pressure shaft seal, insert type bearings, water or air cooled heads, and many other advanced features.

Condenser is ASME approved, fin tube, cleanable type mounted in sturdy base. Water control valve and pressure controls installed.

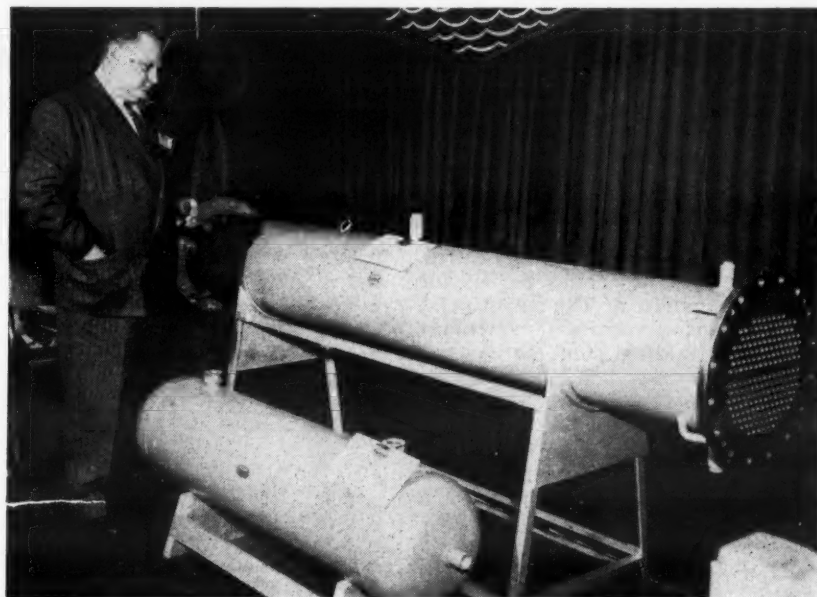
Illustrated above is the "T-C" Model, with capacity from 5 H.P. low temperature to 15 H.P. Air Conditioning. F-C Models to 25 H.P. available; less condenser, from 5 to 50 H.P.

Our new foundry now makes deliveries on most models possible in one to two weeks.

Complete engineering data sent promptly upon request.

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1016 E. Columbia St., Evansville, Ind.



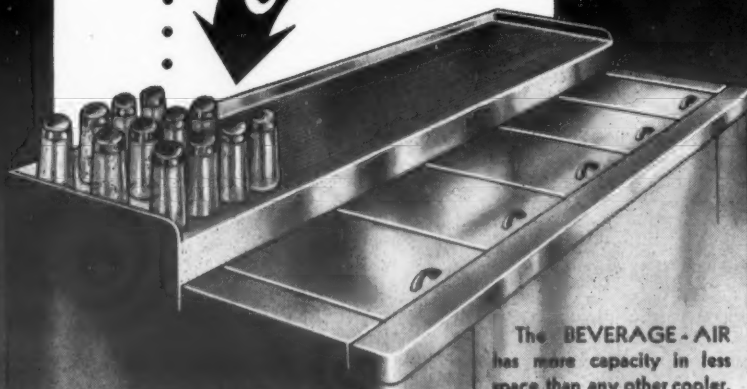
Cigar in hand, Reuben Lisson, sales manager for Davis Engineering Corp., thoughtfully studies his company's #2L-102C "Freon" condenser and 14 in. o. d. by 60 in. over-all vertical type "Freon" receiver. These items were exhibited as samples of Paracoil line Davis has been producing for marine applications but which it is now making available to stationary field. Condenser is built with Cupro nickel (70-30) tube sheets and tubes and has capacity of 25 tons. Receiver is fitted with double bulls-eye sight glasses.



Brooklynite Mickey Ponder stood on tip-toe to peer into Worthington's new 5-hp. package air conditioner (Model SCY-550). Conditioner is powered by a hermetically-sealed, motor-mated compressor. Unit also comes in 3-hp. size.

A SMALL
But MIGHTY
IMPORTANT
FEATURE

Glassware Storage



The BEVERAGE-AIR has more capacity in less space than any other cooler.

"BEVERAGE-AIR" BEVERAGE COOLER

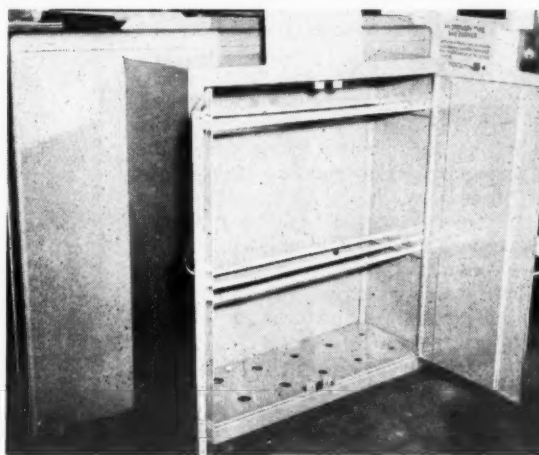
Dealers
and
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MORE
DESCRIPTIVE
LITERATURE

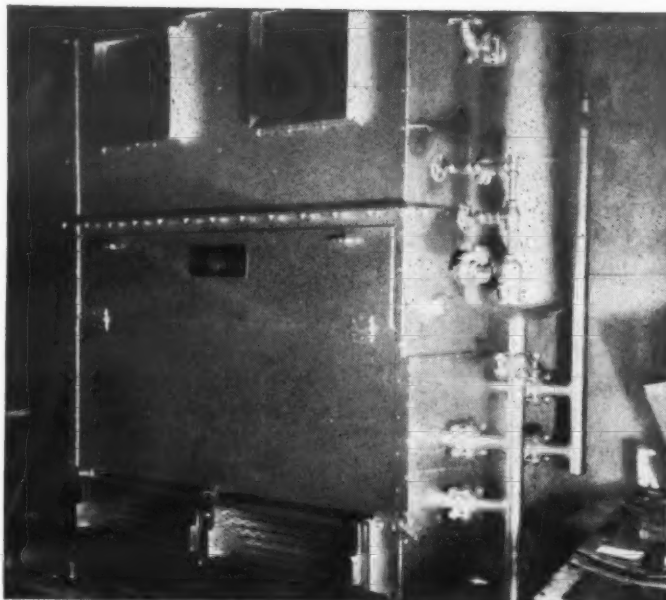
- Incorporated in our design for a more efficient Beverage Cooler is the glassware storage rack on top where it is needed most. The rack is made of corrugated Stainless Steel and can be utilized when Cooler is used under a standard bar.

The "BEVERAGE-AIR" is manufactured by the
PUNXSUTAWNEY COMPANY
PUNXSUTAWNEY, PENNSYLVANIA

New in the Roberts-Gordon Appliance Corp. booth was this "in-a-jacket" forced filtered air clothes drier that is made part of the firm's conventional forced warm air winter air conditioning units. Heated air is driven down through clothes and exhausted at bottom when manually-controlled damper is set. The drier, which lists at \$75, is said to handle 8 lbs. of wet clothes. Drying cycle is 45 minutes, according to firm.



NIAGARA "NO-FROST" METHOD GIVES INCREASED FROZEN STORAGE CAPACITY



Successful Niagara NO-FROST Method installations in chilling of fresh foods and quick freezing of fruits, vegetables, fish, meats, and ice cream hardening prove many advantages:

- No frost or ice at any time... increases capacity and lowers cost. There is no loss of capacity during frost accumulation and no interruption for defrosting.
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Write for Bulletin 83-AC.

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Pressure Gauges
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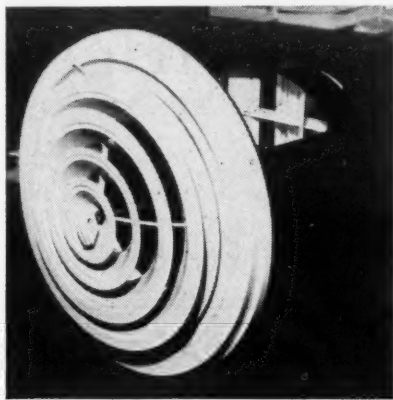
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Refrigeration Booklet

JAS. P. MARSH CORP.
Dept. O, Skokie, Ill.

Demonstrations and Working Models Draw Visitors to Show Exhibits



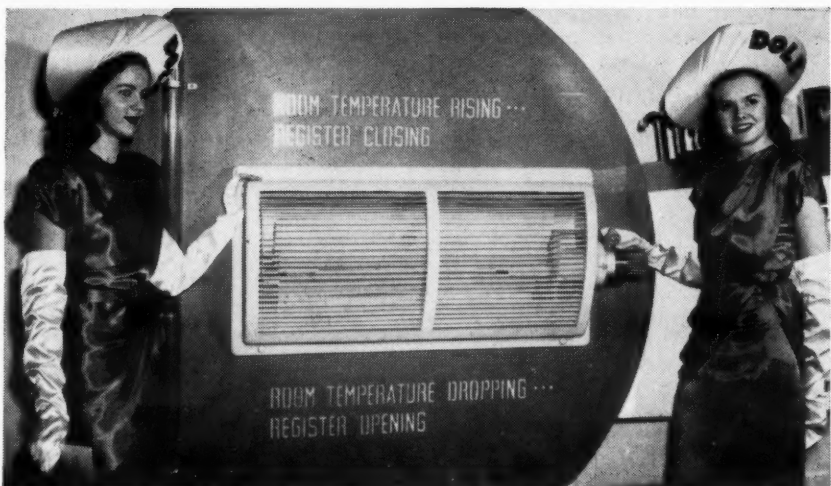
Fred Bishop (left), owner of Bishop Heating & Supply, Highland Park, Ill., looks on with interest as E. L. A. Forster, sales manager of Rome-Turney's radiator division, shows him a cutaway section of a "Rocop" convactor.



Positive control of air distribution at the point of delivery is claimed for this new Tuttle & Bailey "Aerofuse" damper unit, which is adjusted by means of the knob in center of diffuser.



Palmer Mfg. Co.'s new window-type "Sno-Breeze" evaporative cooler (Model 2500-H), gets the once-over from Ted Filip of Toronto, design engineer with the Trane Co. of Canada. The model was displayed by National Home Equipment Co., eastern representative for Palmer.



Pretty Powers models Nancy Bass (left) and June Keith were featured at the Dole Valve Co. exhibit along with the new "Thermo-Matic" register, which automatically opens or closes in accordance with the heat demands of a room. It is normally placed in a room that's easy to heat, so it can close and allow other rooms to be brought up to temperature.

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OUTSTANDING FEATURES

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- Large drillings give full flow.
- Operates under normal pressure with flow in opposite direction.

- Smooth pleasing appearance—symmetrical design.
- Individual wrench pads for tightening flare connections.
- Unique sweat connections permit soft or silver soldering without removing internal assembly.
- High quality, long wearing, seating insert.
- No special tools required for servicing.

Superior ANGLE VALVES

CATALOG NUMBER	CONNECTIONS	LIST PRICE EACH	NET WT. EACH LBS.	CODE WORD
104-4B	SAE Flare 1/4"	\$5.00	.75	Lefom
104-4C	Male Pipe 1/4"	5.00	.75	Lefro
104-6B	SAE Flare 3/8"	5.00	.75	Lefus
104-6C	Male Pipe 3/8"	5.00	1.00	Legaz
105-8B	SAE Flare 1/2"	5.00	1.00	Legon
105-8C	Male Pipe 1/2"	5.00	1.25	Lekad
106-10D	SAE Flare 3/4"	6.00	1.25	

Superior LINE SHUT-OFF VALVES*

CATALOG NUMBER	CONNECTIONS	LIST PRICE EACH	NET WT. EACH LBS.	CODE WORD
204-4	SAE Flare 1/4"	\$5.30	.9	Lelim
204-6	Male Pipe 1/4"	5.30	.9	Lelot
205-8	SAE Flare 3/8"	5.30	1.25	Lemal
206-10	Male Pipe 3/8"	6.60	1.5	Lemjo
204-4S	O.D. Sweat 1/4"	5.30	.9	Lemuz
204-6S	O.D. Sweat 1/4"	5.30	.9	Lenag
205-8S	O.D. Sweat 3/8"	5.30	1.25	Lenek
206-10S	O.D. Sweat 3/8"	6.60	1.5	Lenov

Superior BRANCH SHUT-OFF VALVES*

CATALOG NUMBER	CONNECTIONS	LIST PRICE EACH	NET WT. EACH LBS.	CODE WORD
304-4	SAE Flare 1/4"	\$6.25	1.00	Lepem
304-6	Male Pipe 1/4"	6.25	1.00	Lepuc
305-8	SAE Flare 3/8"	6.25	1.50	Lepwe
306-10	Male Pipe 3/8"	7.50	1.75	Leraj
304-4S	O.D. Sweat 1/4"	6.25	1.00	Lesak
304-6S	O.D. Sweat 1/4"	6.25	1.00	Lesoz
305-8S	O.D. Sweat 3/8"	6.25	1.50	Letep
306-10S	O.D. Sweat 3/8"	7.50	1.75	Letuf

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Refrigeration Problems And Their Solution

By P. B. Reed

For Service and Installation Engineers



Manager, Refrigeration
and Air Conditioning
Division, Perfex Corp.

Cleaning Parts Before Repairing (2)

All liquids suitable for repair-shop cleaning purposes, may be divided into three general types:

1. Hydrocarbons
2. Synthetics
3. Water Solutions

The hydrocarbons, including naphtha, kerosene, and similar materials are derived from petroleum or from coal. Their common characteristics are:

- a. They readily dissolve oils and greases and, therefore, serve the main purpose in the repair shop, which is to wash off the compressor, coil, or other piece of equipment and remove from it the dirt, dust, grease, and oils in which the dirt is dissolved or imbedded.
- b. They are harmless to practically all metals and in fact to most other materials except some gasket material and electrical insulation.
- c. They are inflammable, and care must be exercised in using them.
- d. They are slightly toxic but are

reasonably safe to work around in a fairly well ventilated shop.

e. They are moderate in cost, being very much less than the synthetics, but also very much more than the water solutions.

Ordinary naphtha having a flash point around 30° F., is too highly flammable for safe use in a repair shop. It ignites easily even at ordinary room temperatures. Friction from rubbing it on a surface with a cloth may set it ablaze, so its use for our purpose cannot be recommended.

MIXING KEROSENE WITH NAPHTHA

In order to make it safer to use, it has been mixed with kerosene in proportions of three parts naphtha to one part kerosene. Such a solution is fairly safe to use. However, the naphtha tends to evaporate much faster than the kerosene does and soon leaves the solution with too high a kerosene content, which, if used to wash a casting, doesn't dry off readily and leaves an objectionable oil film.

In such a condition it is difficult to tell how much naphtha to add to bring the solution back to its original strength of $\frac{3}{4}$ naphtha, $\frac{1}{4}$ kerosene.

This is largely true of all mixtures of hydrocarbons; it is difficult to control the proportions and to maintain the original and desired proportion.

If the solution becomes too heavily kerosene, it is oily, does not dry readily, and leaves an oily surface on the work.

If the solution is too heavily naphtha, it evaporates so fast that it's loss is high, and it becomes too highly flammable.

When natural petroleum (crude oil) is refined, it is heated at different temperatures and its different components are separated according to their individual boiling points. This process is sometimes called "fractionation."

High-volatile gasoline starts to come off at about 90° F. and various

grades of gasoline and naphtha are taken off up to about 390° F. The high volatile materials would be very good as cleaning fluids, for they dissolve greases and oils readily, and dry quickly and almost completely, and leave the surface clean and free of residue or oil.

STODDARD SPECIFICATION SOLVENT

However, they are too dangerously flammable. So a few years ago, in order to obtain a "safety naphtha," a set of specifications was set up by a man named Stoddard and "safety naphtha" is known as "Stoddard Specification Solvent." It consists of low-volatile components that boil off in the fractionation process at from about 300° to 400°, and it is, therefore, not highly flammable.

One of the Stoddard specifications is that the "flash point" shall not be lower than 100° F. This means that if the liquid is at or below 100° F. and a flame is held above it a certain distance, the vapor from the liquid will not ignite. Regular, highly volatile naphtha has a flash point under 30° F.

Stoddard Solvent is thus classed as reasonably safe by the National Board of Fire Underwriters, and its use, under normal conditions, is permitted under fire insurance policies.

Another specification covers the odor. If the liquid contains a considerable amount of some of the smelly constituents of petroleum, it is classed as suitable for use by varnish and paint manufacturers and some other purposes, but not for dry cleaning.

DRY-CLEANERS AND VARNISH MAKERS TYPES

If it is comparatively free of odor, it is called "dry-cleaners naphtha" under the Stoddard specifications. Both it and the varnish makers type are classed as "safety naphtha" and are acceptable to Underwriters.

(Continued on next page)

for REFRIGERATOR SERVICE MEN

A Money-Making NATURAL!

How to SELL and INSTALL
Commercial Replacement Hardware
A Service Manual by the Grand Rapids Brass Company

Whenever you get a new piece of equipment, be sure to have it installed properly. This manual tells you how to install and maintain your equipment. It is a money-making opportunity for you. It is a service manual for the Grand Rapids Brass Company.

Example: No. 4723 Lock, No. 3842 Strike
This is the most versatile lock ever made. Designed for use on all types of doors, it is made of stainless steel and is completely rust-proof. It is a money-making opportunity for you. It is a service manual for the Grand Rapids Brass Company.

No. 15331 REVERSIBLE HINGE
Designed especially for glazed display doors of moderate size. Two Oillite bronze bushings and leaf of special zinc alloy, cast under hydraulic pressure. Offsets $\frac{3}{8}$ ", $\frac{1}{2}$ ", $1\frac{1}{4}$ ". No. 15341, identical in appearance, provides 135 degree stop with offsets of $\frac{3}{8}$ ", $\frac{1}{2}$ ", $1\frac{1}{4}$ ". Also available in 105 degree stop in offsets of $\frac{3}{8}$ " and $1\frac{1}{4}$ ".

IMPORTANT: Always check offsets. See diagram.

No. 4718 REVERSIBLE LOCK
Same power and capacity as No. 4720, but designed with shorter base to fit paneled or glazed display cabinets. Operates at the touch of a finger—but when it trips, it grips! Forged brass handle, extruded brass bolt. Use with Strikes No. 3842 or 3839.



AVAILABLE THROUGH
YOUR JOBBER

There's an extra-profit opportunity for YOU, Mr. Service Man . . . in replacing obsolete, loose-fitting, broken down locks and hinges on commercial refrigerating equipment.

This free manual tells you how to cash in . . . how to suggest and sell good-looking, efficient new fittings . . . how to specify, how to install.

You can easily double your present income . . . make new service customers . . . by following these simple tips and clear instructions. Get on the gravy train . . . add a substantial profit to your service charges. Ask your jobber for this manual. If he can't supply, drop us a postcard TODAY for your free copy.



Grand Rapids Brass Company
Division of CRAMPTON MANUFACTURING COMPANY
Grand Rapids 4, Michigan

DIRTY SERVICE CYLINDERS cause trouble

A DIRTY SERVICE CYLINDER WILL FOUL ANY REFRIGERANT

• The importance of clean service cylinders cannot be over-emphasized. Many service problems are definitely traced to dirty service cylinders. The only remedy is KEEP YOUR SERVICE CYLINDERS CLEAN.

Note the easy-to-follow method of cleaning service cylinders illustrated* and, if you wish additional information, or data on other service cylinder cleaning methods, read ANSUL Bulletin "KEEPING SERVICE CYLINDERS CLEAN."

* If you do not have your own service cylinder cleaning facilities ANSUL provides this service for you at a nominal cost. In addition, if requested, ANSUL will make the required periodic I.C.C. pressure test for you.

ANSUL WHOLESALERS are ready and equipped to render an intelligent, co-operative service to refrigeration engineers and maintenance men on problems which arise from time-to-time in the operation of refrigerating systems.



*REG. U. S. PAT. OFF.

ANSUL REFRIGERANTS ARE AVAILABLE AT LEADING WHOLESALERS EVERYWHERE.

ANSUL CHEMICAL COMPANY
REFRIGERATION DIVISION, MARINETTE, WISCONSIN
DISTRIBUTORS FOR KINETIC'S "FREON-11," "FREON-12," "FREON-21," "FREON-22" AND "FREON-113"

1 Remove valve and fuse plug. (Some small cylinders do not have fuse plugs.)

2 Examine interior of cylinder with drop light. (Cutaway view)

3 If sooty, pickle with 5% muriatic acid.

4 Blast inside cylinder with steam and hot air.

5 Cool to 150° F., inspect. Repeat cleaning if necessary.

6 Insert valve and fuse plug.

7 Evacuate.

8 Add refrigerant wash.

9 Shake and dump.

10 Fill with refrigerant for use.

Cleaning Parts--

(Continued from preceding page)

For repair shop use, the cleaners naphtha is preferable because of its less objectionable odor but both have flash-points above 100°.

Practically all of the oil refiners put out a Stoddard Specification Solvent, and they will know what you want if you ask for it by that name.

Standard Oil Co.'s name for the less odorous type is Stanisol and for the somewhat more smelly type, Oleum Spirits. Socony Vacuum's low odor type is Sovasol No. 5 and their somewhat more smelly is Special Spirits. Shell Oil Co.'s low odor solvent is Shell Sol and their more odorous, Mineral Spirits.

All of these and the trade names of other refiners, come within the Stoddard Specifications, and any that do, are suitable for use in cleaning parts, compressors, etc., in the refrigeration repair shop.

EVEN STODDARD SOLVENT NOT COMPLETELY SAFE!

It must not be thought, however, that just because these are called "safety naphtha" that they are completely safe. They are not; they can burn and under proper conditions, they can explode.

They are only comparatively safe, not absolutely safe! Treat them with respect and with care!

These hydrocarbon solvents should be kept in a can that not only has a cover, but the cover should not be detachable and moreover it should be the self-closing type that must be forcibly held open. There are a number of these on the market in various sizes and types. Most of them have a foot-operated cover, that will self-close when the foot is taken from the pedal.

The hydrocarbon solvents dissolve oil and grease with great efficiency and rapidly. Not only do they do this to the oily, dirty covering on compressors, but they also dissolve the oil from the workman's hands.

If he must have his hands in the solvent much of the time he should wear rubber gloves to prevent drying and cracking of the skin. Also the solvents tend to irritate the skin if it is exposed too often or too long.

(To Be Continued)

Declining Commodity Prices No Sign Of Recession, Engineers Are Told

WASHINGTON, D. C. — "Most Washington economists feel that the decline in the commodity markets represents a much needed adjustment of prices that were far out of line. They see nothing in the situation that leads them to believe that this is the beginning of a prolonged recession."

So Paul Wooton, nationally known business analyst and journalist, told members of the Washington-Baltimore chapter of the American Society of Refrigerating Engineers and the local chapter of the American Society of Heating and Ventilating Engineers at their recent annual joint meeting.

The reduction of demand, Wooton stated, seems to present more promise of meeting inflation in 1948 than does an increase in production. Production, he said, is near its peak because of shortages in basic materials and the limits of plant capacity. He felt that steps were certain to be taken to curtail the supply of money.

While not discounting voluntary methods of control, he reminded the engineers that "no inflation in history ever has been licked by voluntary methods."

Wooton is the author of a monthly column in *Nation's Business* and is syndicated to about 130 newspapers. He is president of the National Conference of Business Paper Editors, past president of the National Press Club, past president of the White House Correspondents Association, and a past president of the Washington Society of Engineers. He is said to be the only non-engineer to be so honored by such a society.

The 160 engineers attending the meeting showed a keen interest in prices and steel and how steel production would affect them and business in general.

Wooton told them that the U. S. Department of Commerce is optimistic about overall steel supplies for 1948. He said the department expects an increase in output of 2,000,000 tons.

"It might be even larger if conditions continue to improve in the production of pig iron, coke, and coal,

and in securing additional scrap," he declared. He added that the department was trying to speed scrap collections and improve the quality of coke and coal by pointing out the great advantages in the use of oxygen in steel furnaces.

The automobile industry, he stated, is the most important manufacturing consumer of steel and still has a great demand to satisfy. He pointed out that the average age of existing automobiles is nine years, that the replacement demand is at the rate of 4,000,000 cars annually, and that this replacement demand alone is greater than peak production in any prewar year.

Toastmaster of the joint meeting was L. Bert Nye, past president of ASHVE. Andrew Crawford, ASRE program chairman, arranged the program. He was assisted by Albert E. Beitcell of ASHVE.

Production Up, Kalamazoo Stove To Boost Eastern Dealers 40%

KALAMAZOO, Mich.—Kalamazoo Stove & Furnace Co. will increase its dealers by 40% in states east of the Mississippi, according to Arthur L. Blakeslee, president. An increase in production makes possible the new move.

Blakeslee explained that Kalamazoo had limited the number of dealers enfranchised after the war in order to give each a full supply.



THE NEW PRACTICAL LA CROSSE ICE CUBE MAKER

Designed to meet the demand for both a production and storage in one unit. La Crosse leads the field in this newest addition to their complete line of refrigeration models.

SPECIFICATIONS:

Production capacity—21 quick release trays—14 cubes ea.
Storage capacity—approximately 900 cubes plus 294 cubes in trays.



LA CROSSE COOLER CO.

2809 Losey Blvd. So., La Crosse, Wisconsin

Export Representatives: Melvin Pine & Co.

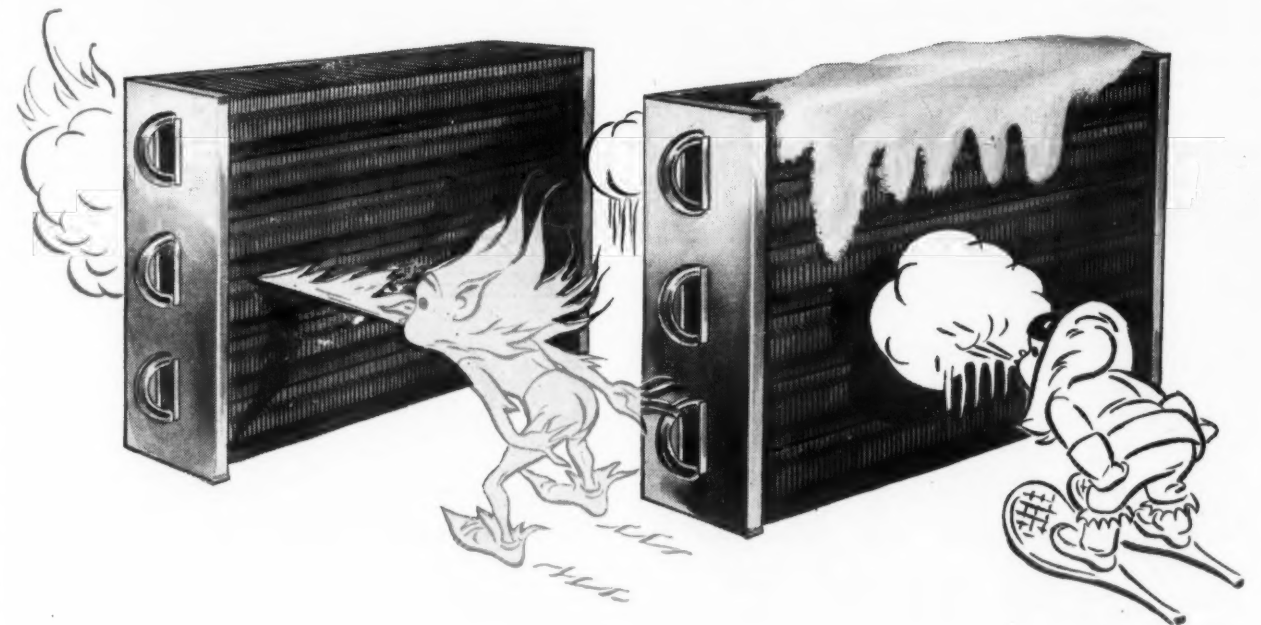
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Wall WIRE
PRODUCTS COMPANY
PLYMOUTH • MICHIGAN
Makers of
REFRIGERATOR SHELVES • STAMPINGS
FORMED AND WELDED PRODUCTS

Trust the Man of the House to be even more of an enthusiast than his wife if his refrigerator has Stainless Steel Shelves.

Whether it's WARMING or COOLING



you've got to move HEAT

Alcoa Aluminum gives faster heat transfer

Manufacturers of heating, air conditioning, and refrigeration equipment find that Alcoa Aluminum is often the answer to a heat-transfer problem. Aluminum moves heat fast.

And they have found the easy formability and castability of lightweight aluminum important in designing compressor parts, heat exchangers, cooling fins, ventilating ducts, and

other equipment. In freezing and refrigeration equipment aluminum is used for box liners, evaporators, accumulators, and tubing in home and commercial units. Aluminum is sanitary and friendly to food.

Alcoa Aluminum is easy to fabricate in a variety of ways, is lightweight, attractive, and easy to maintain—combines these characteristics with high thermal conductivity. For advice on the use of aluminum, call your nearby Alcoa office, or write ALUMINUM COMPANY OF AMERICA, 1975 Gulf Bldg., Pittsburgh 19, Penna.

USE HEAT-X AND BE SURE of MAXIMUM EFFICIENCY and MINIMUM MAINTENANCE

Water Coolers CONNECTIONS MARKED ON CASTING
Soda Coolers NO FREEZE-UP NOTE ALUMINUM CASTING SILVER SOLDERED FITTINGS, NO TWISTING
Beer Coolers COPPER TUBING FOR REFRIGERANT
Cooler Carbonators STAINLESS OR COPPER TUBING COILS FOR LIQUID
Heat Exchangers LIQUID AND REFRIGERANT CANNOT LEAK INTO EACH OTHER
Simple, Sanitary, Compact. They require but small refrigerant charges. Sanitary operation. All tubing embedded in aluminum.

THE HEAT-X-CHANGER CO., INC.
415 Lexington Avenue, New York 17, N.Y. Brewster, N.Y.

ALCOA FIRST IN ALUMINUM

IN EVERY COMMERCIAL FORM



LET THIS DISPLAY REMIND YOU

... that THAWZONE and TRACE are two "musts" in protecting refrigeration systems and keeping them functioning perfectly with the minimum of attention.

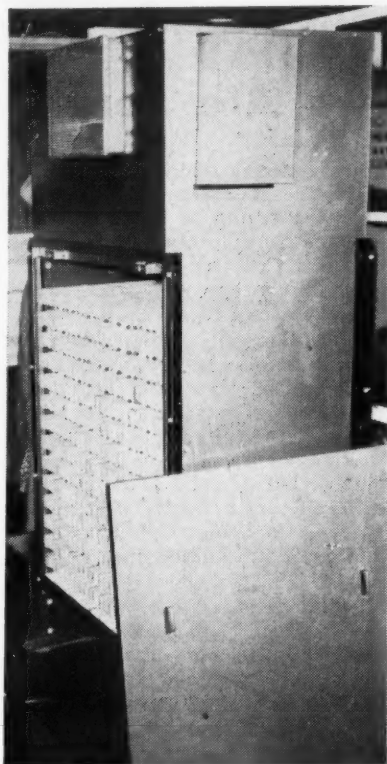
THAWZONE, active, always circulating, destroys moisture chemically, economically, quickly and effectively, in new, reconditioned or old systems.

TRACE is the highly effective refrigerant leak detector with the vivid red color that quickly spots leaks in any refrigeration system... new, old or reconditioned.

You will see this attractive display on the counters of leading refrigeration equipment wholesalers throughout the country.



HIGHSIDE CHEMICALS COMPANY
NEWARK 4, N. J.
195 VERONA AVE.,



Richard Prins of the Prins Heating Co., Grand Haven, Mich., takes a look at the 3/4-hp. window type air conditioner featured at the Chrysler-Airtemp booth in the New York show. Much aluminum is used in the construction of this model, which should be in full production by April 1, the company announces.



Servel says it is being urged to offer this induced draft evaporative cooler to the trade, but thus far it has been limited for installations with the company's gas-fired conditioner. It is rated at 1,350 B.t.u. and 10 g.p.m.

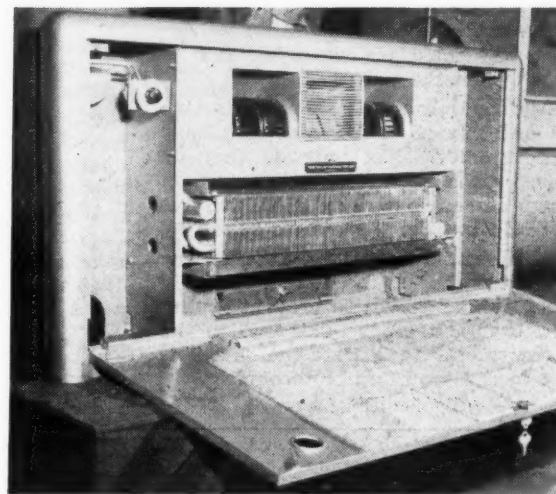


Listing at \$125, this "Dispos-O-Matic" garbage disposal unit is being reintroduced by Scott-Newcomb, Inc., whose vice president, T. J. Scott here shows some of its features. Manufacture of the unit was dropped during the war years.



W. B. Harris (left), engineer with the New York State Labor Department, checks with W. J. Bailey of Illinois Testing Laboratories, Inc., on the latter's new "Alnor Thermo-Anemometer," claimed to be capable of accurately measuring air velocities as slow as the 0 to 100 f.p.m. range.

Applicable to apartment houses, hotel rooms, and offices, this new year-round air conditioning unit was shown for the first time by U. S. Air Conditioning Corp. Recess design permits it to be fitted almost flush with the wall and connected to cold and hot water lines. For cooling this model is rated at 14,000 B.t.u. with 40° F. water and 80° entering air.



Genuine FACTORY REPLACEMENT PARTS

FOR
★ BRUNNER ★ COPELAND ★ COPELAMETIC
★ CHIEFTAIN ★ MILLS ★ JACK & HEINTZ
★ LEHIGH ★ UNIVERSAL COOLER ★ ★ ★

One Stop Supply Service • Complete Stocks • Fast Delivery

CHASE refrigeration supply co. NOT INC.
546 WEST 119TH ST., CHICAGO 28, ILL. - Phone PULman 5125

INTRODUCING "THE FRIGID MIDGET" 1/6 H. P. Condensing Unit

DESIGNED
FOR SERVICE

★
Two Pound Receiver
Ample Condenser
Capacity



MODEL - W-2
REFRIGERANT FREON 12

LIST PRICE—\$120.00 F.O.B. BERWICK, PA.

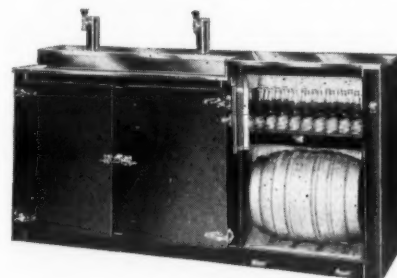
IF YOUR REGULAR WHOLESALER CANNOT FURNISH DATA SHEETS AND QUOTE DISCOUNTS WRITE US DIRECT GIVING US HIS NAME AND ADDRESS.

MULTI-COLD TWIN CYLINDER UNITS AVAILABLE IN
1/4—1/3—1/2 & 3/4 H.P. AIR COOLED MODELS.

MULTIPLEX MANUFACTURING COMPANY
BERWICK, PENNA.

BACK AGAIN...
by popular demand

TRAIL BLAZER



THE MOST COMPLETE BEER!
DISPENSING SYSTEM MADE!

Here's the all-purpose dispenser that has everything at the operator's fingertips. Space for tapping two half barrels—storage space for an extra half—provision for water or soda faucet between the two beer faucets—bottle compartment with 90 bottle capacity! Bottle compartment can be arranged with 3 tray ice cube maker and glass chiller, or dry bottle storage.

In stock for immediate delivery. Get your order in NOW!

Write
For
Details

R. PERLICK BRASS CO.
8110 W. WISCONSIN AVE.
MILWAUKEE 10, WIS.

Maximum EFFICIENCY • Minimum ATTENTION



Precision manufacture gives Larkin refrigeration products life-time top performance and lasting fortitude. Made by the originators of the patented Cross Fin Coil, Larkin is the recognized leader in precision manufacture of Larkin Humi-Temp Forced Convection Units—Bare Tube and Zinc Fused Steel Plate Coils—Air Conditioning Units—Instantaneous Water Coolers—Evaporative Condensers—and all other equipment factors used in dependable commercial and industrial refrigeration.



LARKIN COILS 519 MEMORIAL DRIVE • S.E.
ATLANTA • GEORGIA

Flash Flood--

(Concluded from Page 1, Column 2)

building late Friday afternoon, and caused the most serious threat to production by flooding an entrance tunnel to the plant. However, the plant does not work Friday nights, and the maintenance crews had put the necessary facilities back in shape by the time the Saturday morning pick-up shift went to work.

Timken Takes Over Link-Belt Stokers

DETROIT — The Timken-Detroit Axle Co. has acquired the Stoker Division of the Link-Belt Co. of Chicago.

Link-Belt has manufactured since 1933 a full line of stokers, both hopper and bin-fed, for domestic, commercial and industrial uses.

'Voluntary' Policing--

(Concluded from Page 1, Column 2)

check the validity of the complainant's charge. Where justified, the grievance committee recommended to the recalcitrant repairman that he comply with the customer's wishes.

In all but three instances, these recommendations were honored. But in unusual cases, the group had to resort to the following:

"Our counsel communicated with the offenders and notified them that the customer was prepared to take the dispute to Small Claims Court," explained Liebowitz. "The counsel also stated the association stood ready to supply conclusive technical evidence against them. Complete satisfaction was subsequently given to complaining customers."

Such "voluntary industry house-cleaning" is the answer to City officials here who urge that radio repairmen be licensed, believes Bond Geddes, executive vice president of the Radio Manufacturers Association.

Geddes, who met recently with other industry men to protest such a plan, was outspoken in his opposition to the licensing program suggested by City Councilman Stanley M. Isaacs. Although Isaacs promoted the licensing plan as a means of bringing unethical repairmen into line, Geddes labeled it "discriminatory." Repairmen in other fields, he pointed out, have committed unfair practices without being compelled to take out licenses.

Councilman Isaacs promised that in the future he would take into consideration any recommendations concerning undesirable servicemen made by the ARS committee.

St. Paul Meeting--

(Concluded from Page 1, Column 2)

North Dakota Electrical Contractors Association, the South Dakota Electrical Contractors Association, the Minnesota Municipal Utilities Association, the North Central Electric Association, and the Minnesota Electrical Council (contractors-dealers).

In addition to individual meetings of these groups, five "all-industry" meetings and a banquet are scheduled. These include a luncheon meeting on Monday noon, a lighting meeting on Tuesday morning, merchandising meeting Tuesday afternoon, banquet Tuesday evening, meeting on hazardous locations and the code Wednesday morning, a second luncheon Wednesday noon, and a rural electric equipment meeting Wednesday afternoon.

No convention programs are scheduled for Thursday.

H. M. Kelley, appliance sales manager for Frigidaire, will present his views on the appliance outlook for 1948 at the merchandising meeting Tuesday and at an appliance dealers meeting Wednesday night, the latter sponsored by the Minneapolis and St. Paul Appliance Dealers Association.

A. W. Peterson, western manager of the Hotpoint, Inc. utilities division, will also speak at both of these sessions. He will give his "Tombstones and Touchstones" talk at the merchandising meeting, and a discourse on "Why Salesmen Fail" before the appliance dealers.

Deloss Walker, who was banquet speaker last year, will fill the same role again this year. His subject was unannounced.

Albert P. McNamee, home appliance representative for *McCall's* magazine, will address the second "All-Industry" luncheon on Wednesday.

During a central station conference of electrical suppliers, scheduled for Monday afternoon, utility men and their guests will hear Otto Bouquet, research engineer for the Northern States Power Co. discuss heat pump operation under climatic conditions such as are found in the north central states.

Perfection WALK IN REFRIGERATORS

BY ONE OF AMERICA'S PIONEER COOLER MANUFACTURERS



The "Bromann" Perfection cooling room has been manufactured of the highest quality workmanship and design for over 50 years.

Today this "Perfection" walk-in refrigerator is a source of added profit, a creator of new customers, and a vital and essential part of successful merchandising.

NOW AVAILABLE IN ALL SIZES

Write For Prices and Specifications

Bromann Bros.

857 FULTON ST.

CHICAGO 7, ILL.

MANUFACTURERS OF REFRIGERATOR EQUIPMENT AND BUTCHER SUPPLIES FOR OVER 50 YEARS.

PROFIT OPPORTUNITY FOR DEALERS AND DISTRIBUTORS

Those who saw Trumpet Select-Flo Systems in operation at the All Industry Exposition in Cleveland showed unusual interest in this new beverage dispensing method. For those of you who couldn't attend the show in January, here are the facts;

THE PRODUCT Trumpet Select-Flo Systems—2-way carbonated beverage dispensing units. Draws either a perfectly mixed carbonated beverage or clear, sparkling soda water from the same draft arm. Features standard looking, streamlined draft arms, stainless steel pressure tanks for syrup and stainless steel fittings throughout.

THE MARKET All bars, soda fountains, cafeterias—every establishment that serves carbonated drinks. Select-Flo can be furnished as complete self contained

units or can be installed as part of existing equipment.

ADVANTAGES Faster counter and bar service, better carbonated drinks, less work, more working space, improved sanitary conditions, more profits per sale.

THE COMPANY Select-Flo Systems are manufactured by The Wooster Brass Company, nationally known maker of precision fire fighting equipment. Dealers and distributors can expect the same fine business relationship that exists between the company and its fire equipment outlets.

THE PROPOSAL Recognized Distributors are solicited on an exclusive territorial basis. Dealer inquiries are invited on behalf of distributors. There is already a demand in your territory. Price schedule permits substantial profits. Get complete information now. Write;

WAYNE C. SMITH

TERRITORIAL SALES AGENT

7442 NORTH SEELEY, CHICAGO 45, ILL.

TRUMPET SELECT-FLO SYSTEMS

Manufactured by The Wooster Brass Co., Wooster, Ohio

Facts ABOUT THE**CLEVELAND AND NEW YORK SHOWS**

Eight companies displayed room air-conditioners. Only three had new models. Of the two now in production, one was a 1/2 hp window unit, the other Remington's powerful (11,000 btu/hr.) Model 10 DeLuxe.

The trend is toward more capacity. Two large companies have dropped their 1/2 hp sizes. Remington still stands alone with an air-cooled unit in the **ONE-TON** class.

We'll be glad to sell you a sample, if your territory is still open.

REMINGTON
Air Conditioning
DIVISION
Cortland, New York

**New! Improved! CHARGING HOSES**

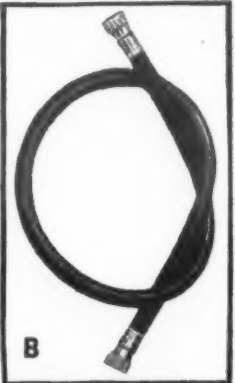
● Made from heavy duty rayon reinforced neoprene hose. Exceptionally flexible and sturdy; will permit small radius bends. 36" lengths. Will withstand temperatures to -40 degrees F. and pressures in excess of 1000 lbs. per square inch. Low original cost and high refrigerant resistance means long time use and resulting economy.

Your wholesaler can supply you.

Fine PRODUCTS CO.
185 N. WABASH AVE. • CHICAGO 1, ILLINOIS

Type A—Standard

Type B—Quick-Coupler

**HASCO**

... now makes suction and discharge valve reeds for leading makes of Hermetic units. Look to Hasco for the best in both conventional and hermetic type compressor parts.



WESTINGHOUSE

WRITE FOR ILLUSTRATED CATALOGUE AND PRICE LIST

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GREENSBORO, N. C.

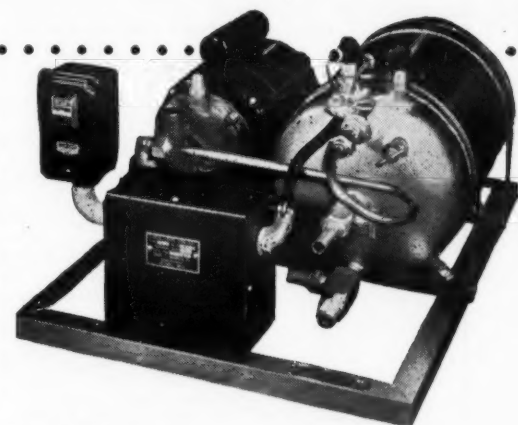
Insist on genuine

Marlo
Products

MARLO-HEAT TRANSFER Since 1925

It Will Pay You to Check the Low Price and Outstanding Advantages of the CRYSTAL-FLO "LB1" Carbonator

The Crystal-Flo Model LB1 Carbonator not only provides the highest quality soda water or club soda for any fountain or tavern, but offers the greatest value in the field today. It is small in size, highly efficient and low in price.

**Only Crystal-Flo Offers These Advantages:**

Better Carbonation: Water is pumped into a stainless steel carbonating tank (no lining to replace) containing CO₂ gas at 120 lbs. pressure. The water is hydraulically separated into a fine mist which immediately absorbs the gas and gives excellent carbonation without a waiting period.

Convenience: No belts, pulleys, gears or lubrication required. No bearings except in motor. Cleaning of check valve, water strainer and maintenance of gas supply is the only attention normally required.

Economy: Water pump runs only when soda water is being drawn. Your only cost is virtually that of gas alone.

Capacity: 20 to 25 gallons per hour. Space required only 16" x 20" x 12". Single, compact frame—filter optional.

The complete Crystal-Flo line includes larger capacity carbonators for all uses.

CRYSTAL-FLO UNDER-BAR DISPENSER

The Crystal-Flo Dispenser eliminates the trouble and expense of handling full or empty bottles. Saves valuable space, for it fits under bottles. Anyone can save money, any counter or bar. With this new, improved mix better drinks, with this new, improved continuous flow dispenser. For cola drinks, ginger ale, root beer, lemon soda or any other mixed beverage.

DISTRIBUTORS

Crystal-Flo equipment enables distributors to sell the rich fountain and tavern market—to increase sales and profits with the finest precision built and advanced engineered units available. Write for complete information.

AMP CORPORATION

2915 Locust Street

St. Louis 3, Missouri

★ NUMBER SEVENTEEN ★

*Air Conditioning's
Primary Markets*

WHILE THE room air conditioner for homes and offices may enjoy a tremendous boom in unit sales during the next several years, the primary market for air conditioning equipment (in terms of dollar volume) will be found in the commercial and industrial fields.

Reason: It *pays* to install air conditioning in a store or factory.

To substantiate this premise, we might tell a story about two department stores located across the street from each other. One had air conditioning on two floors, while the other had none at all. Owner of the second store proved adamant to all sales pressure on the part of salesmen for air conditioners. One persistent salesman, however, inveigled this tough owner up to the roof of his store on an especially hot afternoon. The two men looked down on the street scene below. What the owner of the non-air conditioned store observed from that vantage point threw him into a decline.

He saw men, women, and children leaving his store in a bedraggled state, mopping their brows and throats, and then going across the street to enter the air conditioned competing emporium. What's more, these human beings never seemed to leave the competing air conditioned store. They just stayed there, enjoying the cooler comfort, and exposing themselves to his competitor's display of merchandise.

That's all Mr. Tough Prospect wanted to know. He didn't ask about air velocity, equipment location, remodeling because of ductwork, or even prices. He just told the salesman to air condition his store and do it in a hurry.

Commercial air conditioning installations range from three-ton and five-ton units up to mighty central system installations suitable for theaters, department stores, and public buildings.

This commercial market was going strong when the war hit it—leaving thousands of commercial establishments wanting the equipment but unable to get it. Such proprietors of local re-sale enterprises now comprise a *pre-sold* market for dealers who are willing to gamble on air conditioning, and learn more about it.

That people want air conditioning where they shop, eat, sleep, and play is a foregone conclusion. Here's substantiating evidence for that flat statement: After querying more than 5,000 coach passengers, a prominent railroad discovered that *air conditioning* was the most-wanted improvement suggested by its regular customers.

And if the customers want it, they'll get it.

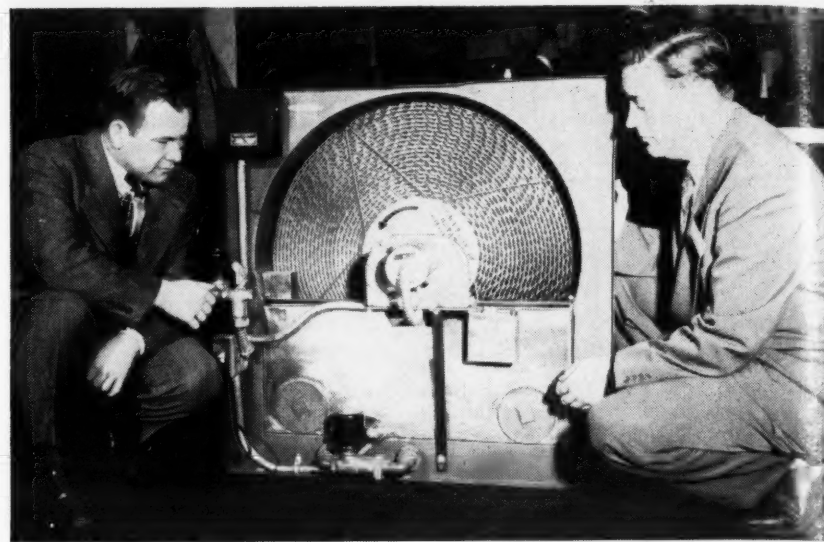
Air conditioning dealers, please take note. The *pre-sold* market for commercial and industrial air conditioning should keep you hopping for many years to come—if you go after it!

This is one of a series of 26 advertisements dedicated to the progress of the entire air conditioning industry by

NEVINGER MFG. CO., INC.

GREENVILLE, ILLINOIS

Various New Air Conditioning Products Arouse Interest at Show In New York



Among the new products introduced at the heating show in New York City was this unit developed by the Farr Co. Designed for use either as a product humidifier or an evaporative cooler, the unit is here examined by L. E. Horton (left) technical engineer with Bahnsen Co. of Winston-Salem, N. C., and R. S. Farr, vice president of the Farr Co.



C. F. Wood (left), manager of air conditioning sales for Frigidaire, discusses sales points of the company's new SRA-50 room conditioner with Frank R. Rice, manager of the commercial and air conditioning division of Frigidaire Sales Corp. in New York City. A window unit, the conditioner is powered by a hermetic compressor and delivers 185 c.f.m.



To assure balanced fans, the Burden Co. of Los Angeles has developed this tester using a cathode ray oscillograph which shows directly which fan blade is out of balance, as Glenn M. Stevenson (right), Burden engineer, demonstrates to John M. Gale, the company's eastern representative.



Leonard Phillips (left), director of research for Anemostat Corp., shows Henri Dagenais of Commercial & Industrial Ventilation, Ltd., Montreal, how the new Anemotherm air meter functions. The new device is claimed to measure accurately air velocity, air temperature, and either negative or positive static pressures in the laboratory or the field.

Schnacke, Inc. Schedules Sales, Service Meetings

EVANSVILLE, Ind.—To provide its dealers and distributors with a more complete knowledge of Schnacke 5 to 50-hp. compressors and condensing units, Schnacke, Inc. has arranged a succession of sales and service meetings to be held in all parts of the country. F. C. Schnacke, president, has announced.

A series of slide photographs showing the entire story of the production and assembly of the units together with complete advertising and sales promotion data will be a feature of the meetings, according to Schnacke.

All phases of construction and applications of Schnacke compressors and condensing units will be discussed for the benefit of distributors, dealers, contractors, engineers, and designers, he added.

The program is headed by T. G. Thomas, sales manager, and G. A. Lamb, chief service engineer. They are working in conjunction with company division managers and have already scheduled meetings in St. Louis and Kansas City, Mo.; Chicago; Fond du Lac, Wis.; and New York City.

Ince Named Sales Application, Research Engineer at Marlo

ST. LOUIS—Formerly with Sverdup & Parcel here, F. Edward Ince has just announced that he has joined Marlo Coil Co. as sales application and research engineer.

\$150,000 Slated by Ebco To Spur Water Cooler Use During 1948

COLUMBUS, Ohio—The Ebco Mfg. Co. has launched a \$150,000 promotional program for 1948 for its pressure and bottle type electric drinking water coolers.

A. R. Benua, president of the firm, said that the program will seek to boost Oasis sales by creating a conscious demand on the part of the public for readily available, properly cooled drinking water in factories, offices, stores, theaters, stadiums, banks, and other places where numbers of people work or congregate.

The electric drinking water cooler has been sold only to 15 or 20% of its saturation point, Benua said.

The promotional program includes both intensive advertising in a considerable number of general, trade, and specialized fields and public relations activities directed by Theodore R. Sills & Co. of Chicago and New York.

The health value of water and the business economy of having properly cooled drinking water within easy reach of employees and customers will be stressed in the Ebco promotional program.

"We will seek to sell electric drinking water coolers largely by selling the advantages of drinking more and better water," Benua explained. "Our program will be devoted largely to stressing the 'Whys' of the necessity of good drinking water."

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$2.50 per insertion 50 words or under. 5¢ ea. additional word.

RATES for all other classifications \$5.00 per insertion 50 words or under. 10¢ ea. additional word.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count.

POSITIONS WANTED

SERVICE ENGINEER, age 34, married, 12 years experience in air conditioning, commercial and marine refrigeration, "Freon" and methyl chloride. Desire permanent position with manufacturer or distributor. Own auto, will travel. Will furnish references. A. J. LANE, 311 E. Lane St., Raleigh, N. C.

ENGINEER—Thirteen years experience in refrigeration and air conditioning including product design and development, dehydration methods, testing, supervision, service, drafting, methods engineering and factory layout desires contact with manufacturing concern. BOX 2693 Air Conditioning & Refrigeration News.

FORMER DISTRICT Sales Manager for leading manufacturer of standard and low temperature refrigeration equipment wants to represent manufacturer needing good representation in Texas and Oklahoma. Can place your line with best dealers this area. Interested only in high type proposition. Salary or otherwise. BOX 2694 Air Conditioning & Refrigeration News.

REFRIGERATION SERVICE Engineer 12 years experience on domestic & commercial servicing, installing & estimating. Would prefer work in small city or village. Would go most anywhere in U. S. Age 32, married with family. References if desired from responsible men in refrigeration industry. Available about April first. BOX 2697 Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

EXPERIENCED MEN: Due to expansion program, we are interested in several men to teach in large refrigeration and air conditioning school. Teaching experience preferred but not necessary. Full time job. Salary and opportunity above average. When applying state qualifications. Write: UNIVERSAL TRADES SCHOOL, 4030 South 13th St., Omaha, Nebraska.

SERVICE MANAGER—For aggressive sales and service company located in Northern Ohio. Service Department personnel consists of 20 people. This is a permanent position with unlimited possibilities. Requires a manager well qualified to supply mechanical information and organize office and service procedures. State previous experience, when personal interview may be arranged in first letter. Unless you can qualify for a \$7,000 to \$8,000 position, please do not reply. BOX 2674 Air Conditioning & Refrigeration News.

WANTED—CHIEF refrigeration engineer by manufacturer of domestic refrigeration. A man of broad experience and imagination, to work constantly toward the development of more efficient refrigeration systems. Must have broad knowledge of production techniques for the mass assembly of hermetic systems. Send personal, job and salary histories, together with picture to BOX 2680 Air Conditioning & Refrigeration News.

GRADUATE MECHANICAL engineer with several years experience designing heat transfer and air handling equipment. Permanent with well established Mid-West

manufacturer. Salary in relation to experience. BOX 2682 Air Conditioning & Refrigeration News.

MANUFACTURER OF commercial refrigerator hardware desires traveling salesmen to sell refrigerator hardware to builder and store fixture trade, commission basis. BOX 2688 Air Conditioning & Refrigeration News.

SALES MANAGER: Managerial ability and experience to handle statewide distributorship of old line commercial refrigerators preferred. Attractive opportunity to acquire interest in organization; which has facilities for custom manufacturing also reconditioning of used equipment. Located Mid-Western state. All answers strictly confidential. BOX 2696 Air Conditioning & Refrigeration News.

SALESMAN WANTED: Manufacturer of long established, well advertised line of refrigerator hardware wants experienced representative to sell locks and hinges to jobbers and manufacturers, in Eastern and Southern territories. Commission basis. BOX 2699 Air Conditioning & Refrigeration News.

SALES ENGINEER: 30 to 35, by large manufacturer of commercial condensing units, packaged and central type air conditioning units, to establish dealers in Southern California. Permanent. Salary, commission and traveling expenses. M. E. graduate with application experience in both fields necessary. Must own car. State all qualifications in first letter. Our employees are aware of this ad. BOX 2700 Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

ALCO thermo-expansion manifolds, type Q31-1F (TCL valve, 440/60 solenoid, Henry strainer, shutoff and hand-expansion valves, assembled into one bronze casting with 3/8-1/2 ODS connections) \$25 each. Mueller 3/4 SAE packed globe valves with handwheel—lots of 50 @ 85¢. ANCHOR SUPPLY, 1742 Fourth South, Seattle 4, Wash.

COLDSPOT-SEALED and semi-sealed units completely rebuilt and guaranteed for one year as low as \$29.50. Many other makes of sealed units also serviced. Write for further information. BRIGHTON, 16640 Log Cabin, Detroit 3, Michigan.

NEW GENERAL Electric motors, 1 1/2 HP. 1800 R.P.M. 230 volts 1 Ph. 60 cycle. High starting torque. Constant duty sleeve bearing. List \$88 less 20%. Also in stock 1/2 to 1 HP. EDISON COOLING CORP., 310 East 149th St., New York City, N. Y.

QUALITY BOBTAIL fountains; reach-ins, walk-in boxes—wood, metal; dough retarders; double duty cases—stainless steel, porcelain; dairy, florist, bakery cases; ice cream hardening cabinets; thermopane frozen food cases; milk, sandwich coolers; stainless steel back bars; with machines. Equipment made to special order. FRIGITEMP CORP., 931 Bergen St., Brooklyn 16, MA 2-9093.

OUR BUYER was so impressed with the 600 lb. capacity Fairbanks Beam Scale that he went off his beam and bought more than we can use. Will reduce price to sell surplus. \$25.00 each; 5 or more \$23.60 each (F.O.B. Philadelphia). GENERAL REFRIGERATOR COMPANY, 856 North Broad Street, Philadelphia, Pa.

FOR SALE at reduced prices, 2-tap all stainless steel direct draw boxes complete with blowercoil \$275 F.O.B. Chicago, Illinois. 3-tap all stainless steel direct draw boxes complete \$340. GEORGE HILGER CO. INC., 8444 So. Racine, Chicago, Illinois.

JACK & HEINTZ fractional horsepower motors. Complete line of various sizes: 1/8, 1/4, 1/2, 3/4, 1, 1 1/2, 2, 3, 5, 10, 15, 20, 25, 30, 40, 50, 60, 75, 100, 125, 150, 200, 250, 300, 400, 500, 600, 750, 1000, 1250, 1500, 2000, 2500, 3000, 4000, 5000, 6000, 7500, 10000, 12500, 15000, 20000, 25000, 30000, 40000, 50000, 60000, 75000, 100000, 125000, 150000, 200000, 250000, 300000, 400000, 500000, 600000, 750000, 1000000, 1250000, 1500000, 2000000, 2500000, 3000000, 4000000, 5000000, 6000000, 7500000, 10000000, 12500000, 15000000, 20000000, 25000000, 30000000, 40000000, 50000000, 60000000, 75000000, 100000000, 125000000, 150000000, 200000000, 250000000, 300000000, 400000000, 500000000, 600000000, 750000000, 1000000000, 1250000000, 1500000000, 2000000000, 2500000000, 3000000000, 4000000000, 5000000000, 6000000000, 7500000000, 10000000000, 12500000000, 15000000000, 20000000000, 25000000000, 30000000000, 40000000000, 50000000000, 60000000000, 75000000000, 100000000000, 125000000000, 150000000000, 200000000000, 250000000000, 300000000000, 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Dept. Store Dollar Volume Sales Rise 18% In January

WASHINGTON, D. C.—A gain of 18% in dollar volume sales was registered by department stores during January as compared with a year ago.

According to the seasonally adjusted index used by the Federal Reserve Board, sales during last month were estimated at 283% of the 1935-39 average. In January, 1947, they were 265 and in December, 303.

Dollar value reported for the week of Jan. 31, 1948, reflected a level 7% above the similar period of 1947.

Husmann Nets \$1,602,500

ST. LOUIS—The Husmann Refrigerator Co. has reported a net profit of \$1,602,516, or \$3.99 per common share for the year 1947. In 1946, the company made a net profit of \$1,003,369, or \$2.72 per share.



Among those who gathered recently at the Tecumseh plant for a meeting of sales representatives were: (seated, left to right) L. W. Larsen, assistant sales manager; J. K. Tauborg, chief engineer; R. W. Herrick, president; F. K. Smith, sales manager; C. M. Brown, general manager; and F. G. Purcell, service manager. (First row): V. A. Wilkinson, Detroit (export); R. T. Smith, Adrian, Mich.; W. H. Cady, Dallas, Tex.; G. I. Boone, New York City; W. S. McCloud, Denver; and F. A. M. Dawson, London, Ontario. (Back row): A. O. Beamer, South America; H. F. Moon, St. Louis; A. E. Boyea, Detroit (export); J. W. Benke, St. Louis; W. C. McCloud, Denver; J. E. Smith, Adrian, Mich.; L. C. Smith, Lyons, N. Y. (Kenmore); G. T. Stacy, Atlanta; J. E. Parker, Atlanta; J. A. Swain, New York City; G. B. Boone, New York City; H. M. Kelso, Blissfield, Mich.; O. C. Yates, Seattle; J. A. McLaren, Los Angeles; C. L. Geever, Chicago; and M. A. Shantz, Chicago.

Tecumseh Outlines--

(Concluded from Page 1, Column 4)
mately 2 in. lower height, making it more adaptable to the present trend in domestic refrigeration developments, Larsen said.

Other new models introduced by Tecumseh include $\frac{1}{4}$ and $\frac{1}{2}$ -hp. single cylinder units for use with "Freon-22." A $\frac{1}{2}$ -hp. unit that can be used with both "Freon-12" and "Freon-22" has also been added to the line.

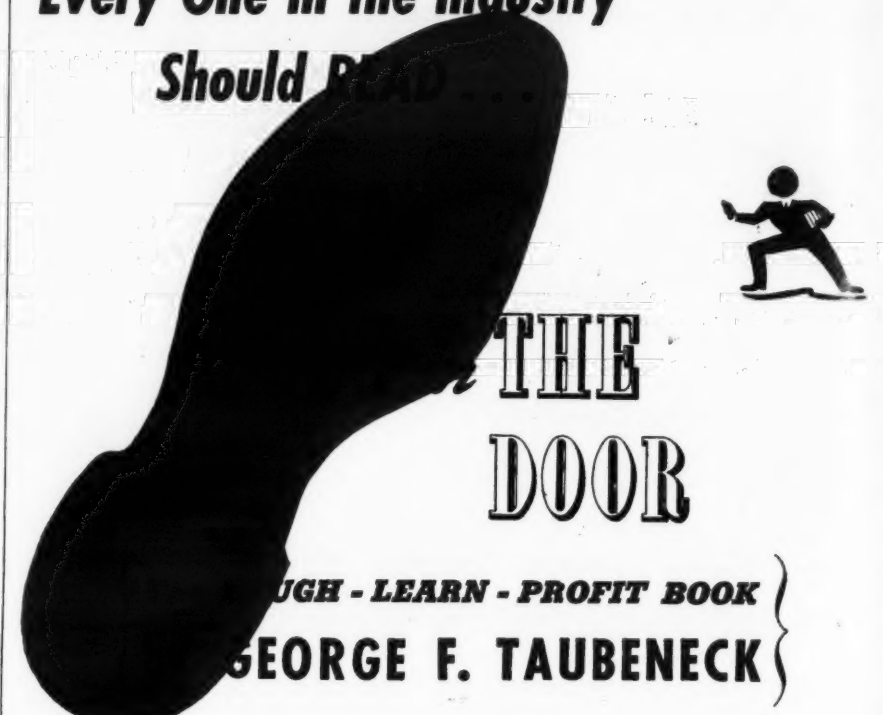
Under the arrangements with Kenmore, Tecumseh will sell the

New York firm its standard $\frac{1}{4}$ and $\frac{1}{2}$ -hp. single and twin cylinder and $\frac{1}{4}$ and $\frac{1}{2}$ -hp. model condensing units on standard base. The $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{1}{2}$ -hp. models will include two motor pulleys, enabling the purchaser to convert easily from high to low back pressure or from "Freon" to methyl chloride, according to Larsen.

Kenmore will also be able to purchase the "Chieftain" 4-cylinder Blissfield units in $\frac{1}{2}$, $\frac{3}{4}$, and 1-hp. sizes on two different base types for remote or self-contained application, Larsen added.

Kenmore already has stocks of these units available for immediate delivery, he declared.

Every One in the Industry Should Read



TAUGH - LEARN - PROFIT BOOK
GEORGE F. TAUBENECK

... Because Every Laugh Drives Home a
SOUND SALES PRINCIPLE!

"This is a funny book," declares George Taubeneck, editor of *Air Conditioning & Refrigeration News*, in his heading for Chapter 1. That's true. You'll laugh! You'll learn, too.

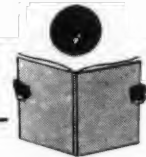
"One Foot in the Door" is the laugh-and-fact-packed story of Specialty Selling. It takes you back through chuckling pages to the birth of the specialty merchandising art under John H. Patterson of N.C.R. fame, and it takes you forward—again with smiles and guffaws—to the shining future.

It clearly delineates the selling principles which years of experience

have set up—and makes them easy to remember by associating these principles with humorous anecdotes. It vigorously points up the job ahead for sales management—tells what, where, why, when, and how.

It pleads eloquently for—and points the way toward—the more efficient distribution system that will be one of the strongest bulwarks of private enterprise.

It does all this so agreeably and fascinatingly that, when you finally finish it, you'll call it the most enjoyable book you've read in a decade.



CHAPTER TITLES from "One Foot in the Door"

1. "This Is a Funny Book"
2. The Old Master—and How He Got That Way
3. Making Direct-Mail Advertising Respectable
4. Hair Grows on a Billiard Ball
5. Publicity Isn't Always Free
6. People See Better Than They Hear
7. How to Humanize Your Company
8. Tom Thumb Cartels
9. Finding the Rainbow's Pot-of-Gold
10. There's Always One Best Way to Tell Your Story
11. You Can't Get Off First Base Without a Sales Manual
12. "It Pays for Itself"
13. Ask the Man Who Uses One
14. Everybody Loves a Convention
15. Sales Training Schools Must Be Clever and Entertaining
16. Circuit Riding Becomes a Profession
17. Make It Clear, Make It Simple, Make It Direct
18. Just a Minute, Dear
19. Five Will Get You Ten
20. Mama Can Help, Too
21. Ask the Man Who Does the Work
22. Factory Open House Policy
23. Who Says You Can't Sell Abroad?
24. "Tell All" Promotion Rings the Bell

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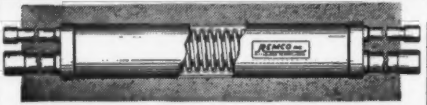
PLEASE SHIP US COPIES OF "ONE FOOT IN
THE DOOR" AT \$3.00 PER COPY.
☐ CHECK ENCLOSED ☐ BILL US

Company.....

Address.....

By.....
*Postpaid only when remittance accompanies order. 2-23-48

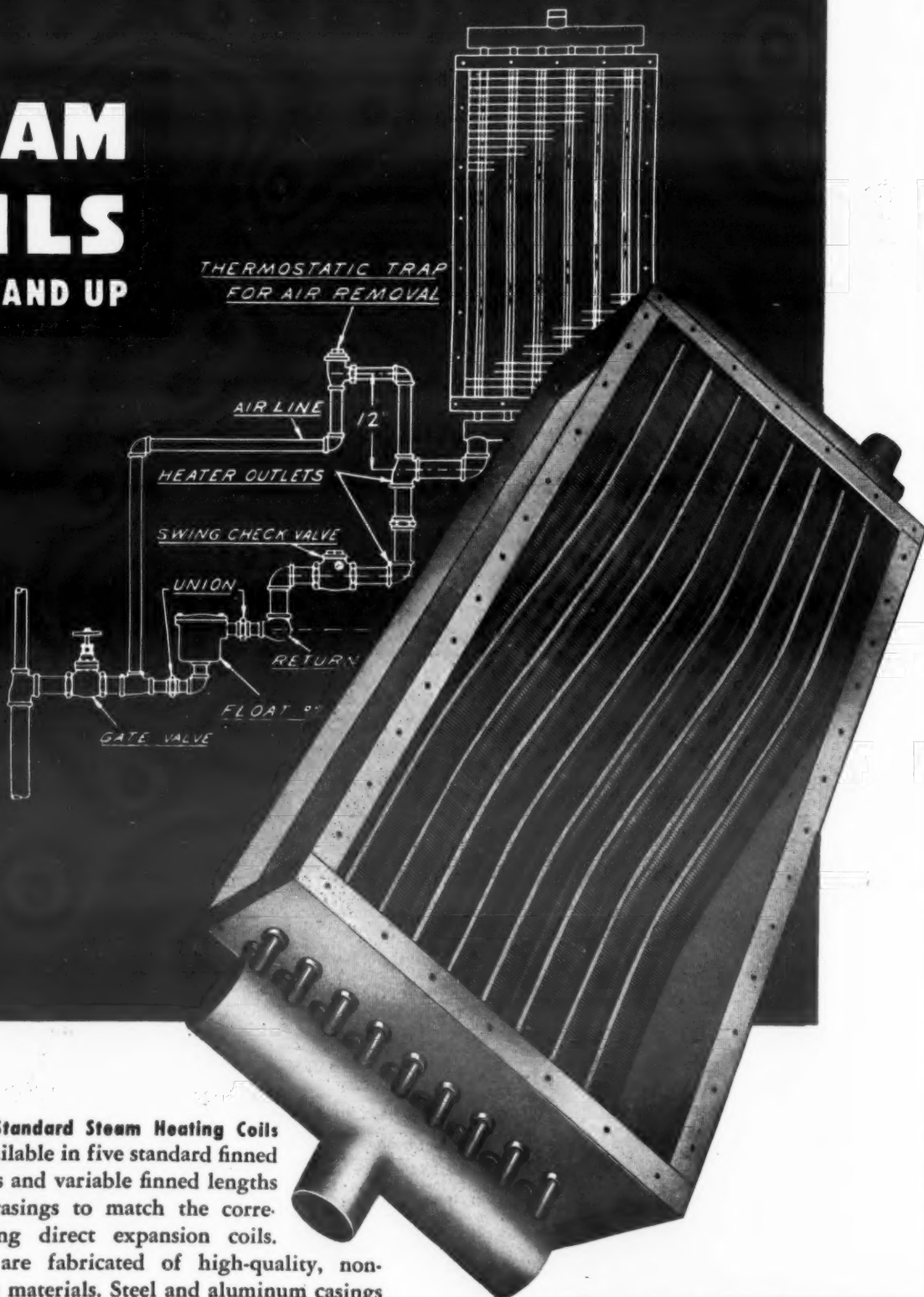
REMCO "Liquid-Fin" HEAT EXCHANGERS



LIQUID flows inside the spiral corrugations in "prime" heat exchange relationship with the colder higher velocity suction gases which travel outside the rapid-transer "Liquid-Fin" heat exchanger element. Capacity per unit size is very high.

ASK YOUR WHOLESALE... OR WRITE
REMCO, INC., ZELIENOPLE, PA.

STEAM COILS THAT STAND UP



BUSH Standard Steam Heating Coils are available in five standard finned heights and variable finned lengths with casings to match the corresponding direct expansion coils. Cores are fabricated of high-quality, non-ferrous materials. Steel and aluminum casings are protected with zinc or lead coatings... plus a priming coat for additional protection. Carefully tested, conservatively rated, non-freeze available, built to give long, trouble-free service and top efficiency of operation.

BUSH MANUFACTURING COMPANY
WEST HARTFORD 10, CONNECTICUT

